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<151> 2002-10-22

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<210> 29
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 <212> DNA
 <213> Rattus norvegicus

<400> 29	
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gcagtgactc agtggttttt agaggtgaga tagtgtttca acatgatgac cactacaacg	360

ttactcagaa tcaagatata gttaacagca ccttcgctgg agtcctgtct ctaagcgaac	420
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agtgtgatct gcaggatccc attgtctgcc ttgccgatca accacatggc ccaccagtat	720
cttcttccag caagcctgtg ccagttgtac ctcaggccac cattttttcc cacgttgcta	780
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ccattgactt gcctgttcaa catgtagtgg cttcttcctc cttgccccaa actgatcttt	960
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atttctttga aacacctgcc ctatttcagg acccctccct ggagaacctc tctctgataa	1560
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gcttagaagc atttcatatg tacctagcac tggttaaggt ttttaatact tacatccgaa	2160
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tgtccagttt tccttttata caatgtgaga tatatgaaaa tcgctggttt tctactcagc	3120
aacctcgaaa ggaacataag ctaattgagg gcaacagttt actgtcggaa gaaggaaact	3180
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gtcacatttt aaagaggctg ttatccttga taacatcctt taaaaaatgt ttacttcagt	3360
ctgttggtga gttgagttgt gcatgccttt gttgtatata agctaagttc taatgacca	3420
catgtcaaaa atcgtatctc tatctttttt tatatttatt ttctactgtg taaatttatt	3480
ctttttaga atcatggttg tgtcgttttc tctaattgtga taacttacca gtgacttcta	3540
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taatgataaa ggcagactga acaattataa atagacagtg ccacaatcag cttagctatc	3660
agcctctgag ctatcaagga aagggtgtccc cattggacgg acatagcctt atgagcttat	3720
ggtttgggaa aaagtgggggt cacattttcg ccctgatgat cctcttgagt accttattca	3780

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gggcccttat gtagggctctt tatgcagggg atgacttata tgactatatt ggacactaaa 3840
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ggttgttaga ggataaaaatt gtaatctaaa ccatgtaggg aagactgtga atgtgggaaa 3960
gatatacact gccacttctc aaatacccag agcctttgaa aagaggaaat cagagtagga 4020
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tgttgtatcc cagactaacc acagtagtaa cgtctgtttc tctgtgtgct cgttggtctt 4440
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aatgataaaa tcaataaaaat aaatttgcac 4530

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<210> 30
<211> 1017
<212> PRT
<213> Homo sapiens

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<400> 30

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Met Val Phe Ser Val Arg Gln Cys Gly His Val Gly Arg Thr Glu Glu
1           5           10           15

```

```

Val Leu Leu Thr Phe Lys Ile Phe Leu Val Ile Ile Cys Leu His Val
20           25           30

```

```

Val Leu Val Thr Ser Leu Glu Glu Asp Thr Asp Asn Ser Ser Leu Ser
35           40           45

```

```

Pro Pro Pro Ala Lys Leu Ser Val Val Ser Phe Ala Pro Ser Ser Asn
50           55           60

```

```

Gly Thr Pro Glu Val Glu Thr Thr Ser Leu Asn Asp Val Thr Leu Ser
65           70           75           80

```

```

Leu Leu Pro Ser Asn Glu Thr Glu Lys Thr Lys Ile Thr Ile Val Lys
85           90           95

```

Thr Phe Asn Ala Ser Gly Val Lys Pro Gln Arg Asn Ile Cys Asn Leu
 100 105 110

Ser Ser Ile Cys Asn Asp Ser Ala Phe Phe Arg Gly Glu Ile Met Phe
 115 120 125

Gln Tyr Asp Lys Glu Ser Thr Val Pro Gln Asn Gln His Ile Thr Asn
 130 135 140

Gly Thr Leu Thr Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Ser Glu
 145 150 155 160

Leu Asn Lys Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Met Cys
 165 170 175

Ala Thr Ala Glu Ala Gln Ser Thr Leu Asn Cys Thr Phe Thr Ile Lys
 180 185 190

Leu Asn Asn Thr Met Asn Ala Cys Ala Ala Ile Ala Ala Leu Glu Arg
 195 200 205

Val Lys Ile Arg Pro Met Glu His Cys Cys Cys Ser Val Arg Ile Pro
 210 215 220

Cys Pro Ser Ser Pro Glu Glu Leu Gly Lys Leu Gln Cys Asp Leu Gln
 225 230 235 240

Asp Pro Ile Val Cys Leu Ala Asp His Pro Arg Gly Pro Pro Phe Ser
 245 250 255

Ser Ser Gln Ser Ile Pro Val Val Pro Arg Ala Thr Val Leu Ser Gln
 260 265 270

Val Pro Lys Ala Thr Ser Phe Ala Glu Pro Pro Asp Tyr Ser Pro Val
 275 280 285

Thr His Asn Val Pro Ser Pro Ile Gly Glu Ile Gln Pro Leu Ser Pro
 290 295 300

Gln Pro Ser Ala Pro Ile Ala Ser Ser Pro Ala Ile Asp Met Pro Pro
 305 310 315 320

Gln Ser Glu Thr Ile Ser Ser Pro Met Pro Gln Thr His Val Ser Gly
 325 330 335

Thr Pro Pro Pro Val Lys Ala Ser Phe Ser Ser Pro Thr Val Ser Ala
 340 345 350

Pro Ala Asn Val Asn Thr Thr Ser Ala Pro Pro Val Gln Thr Asp Ile
 355 360 365

Val Asn Thr Ser Ser Ile Ser Asp Leu Glu Asn Gln Val Leu Gln Met
 370 375 380

Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu
 385 390 395 400

Met Ile Asn Gln Val Ser Arg Leu Leu His Ser Pro Pro Asp Met Leu
 405 410 415

Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Asp Ile Gly Leu
 420 425 430

Gln Leu Asn Phe Ser Asn Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu
 435 440 445

Ala Leu Ala Val Ile Arg Val Asn Ala Ser Ser Phe Asn Thr Thr Thr
 450 455 460

Phe Val Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu Glu Thr Gln
 465 470 475 480

Ala Pro Glu Asn Ser Ile Gly Thr Ile Thr Leu Pro Ser Ser Leu Met
 485 490 495

Asn Asn Leu Pro Ala His Asp Met Glu Leu Ala Ser Arg Val Gln Phe
 500 505 510

Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn
 515 520 525

Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Ala Asn Leu Thr
 530 535 540

Val Arg Asn Leu Thr Arg Asn Val Thr Val Thr Leu Lys His Ile Asn

545		550		555		560									
Pro	Ser	Gln	Asp	Glu	Leu	Thr	Val	Arg	Cys	Val	Phe	Trp	Asp	Leu	Gly
				565					570					575	
Arg	Asn	Gly	Gly	Arg	Gly	Gly	Trp	Ser	Asp	Asn	Gly	Cys	Ser	Val	Lys
			580					585					590		
Asp	Arg	Arg	Leu	Asn	Glu	Thr	Ile	Cys	Thr	Cys	Ser	His	Leu	Thr	Ser
		595					600					605			
Phe	Gly	Val	Leu	Leu	Asp	Leu	Ser	Arg	Thr	Ser	Val	Leu	Pro	Ala	Gln
	610						615				620				
Met	Met	Ala	Leu	Thr	Phe	Ile	Thr	Tyr	Ile	Gly	Cys	Gly	Leu	Ser	Ser
625					630					635					640
Ile	Phe	Leu	Ser	Val	Thr	Leu	Val	Thr	Tyr	Ile	Ala	Phe	Glu	Lys	Ile
				645					650					655	
Arg	Arg	Asp	Tyr	Pro	Ser	Lys	Ile	Leu	Ile	Gln	Leu	Cys	Ala	Ala	Leu
			660					665					670		
Leu	Leu	Leu	Asn	Leu	Val	Phe	Leu	Leu	Asp	Ser	Trp	Ile	Ala	Leu	Tyr
		675					680					685			
Lys	Met	Gln	Gly	Leu	Cys	Ile	Ser	Val	Ala	Val	Phe	Leu	His	Tyr	Phe
	690					695					700				
Leu	Leu	Val	Ser	Phe	Thr	Trp	Met	Gly	Leu	Glu	Ala	Phe	His	Met	Tyr
705					710					715					720
Leu	Ala	Leu	Val	Lys	Val	Phe	Asn	Thr	Tyr	Ile	Arg	Lys	Tyr	Ile	Leu
				725					730					735	
Lys	Phe	Cys	Ile	Val	Gly	Trp	Gly	Val	Pro	Ala	Val	Val	Val	Thr	Ile
			740					745						750	
Ile	Leu	Thr	Ile	Ser	Pro	Asp	Asn	Tyr	Gly	Leu	Gly	Ser	Tyr	Gly	Lys
		755					760					765			
Phe	Pro	Asn	Gly	Ser	Pro	Asp	Asp	Phe	Cys	Trp	Ile	Asn	Asn	Asn	Ala
	770						775				780				

Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu
785 790 795 800

Asn Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys
805 810 815

Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu
820 825 830

Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe
835 840 845

Ala Phe Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe
850 855 860

Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys
865 870 875 880

Val Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys
885 890 895

Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr
900 905 910

Asn Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser
915 920 925

Asn Ser Leu Gln Ser Ser Ser Asn Ser Thr Asn Ser Thr Thr Leu Leu
930 935 940

Val Asn Asn Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser
945 950 955 960

Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys
965 970 975

Leu His Asp Phe Thr Gly Lys Gln His Met Phe Asn Glu Lys Glu Asp
980 985 990

Ser Cys Asn Gly Lys Gly Arg Met Ala Leu Arg Arg Thr Ser Lys Arg
995 1000 1005

Gly Ser Leu His Phe Ile Glu Gln Met
 1010 1015

<210> 31
 <211> 1009
 <212> PRT
 <213> Mus musculus

<400> 31

Met Leu Phe Ser Gly Gly Gln Tyr Ser Pro Val Gly Arg Pro Glu Glu
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Val Leu Leu Ile Tyr Lys Ile Phe Leu Val Ile Ile Cys Phe His Val
 20 25 30

Ile Leu Val Thr Ser Leu Lys Glu Asn Gly Asn Ser Ser Leu Leu Ser
 35 40 45

Pro Ser Ala Glu Ser Ser Leu Val Ser Leu Ile Pro Tyr Ser Asn Gly
 50 55 60

Thr Pro Asp Ala Ala Ser Glu Val Leu Ser Thr Leu Asn Lys Thr Glu
 65 70 75 80

Lys Ser Lys Ile Thr Ile Val Lys Thr Phe Asn Ala Ser Gly Val Lys
 85 90 95

Ser Gln Arg Asn Ile Cys Asn Leu Ser Ser Leu Cys Asn Asp Ser Val
 100 105 110

Phe Phe Arg Gly Glu Ile Val Phe Gln His Asp Glu Asp His Asn Val
 115 120 125

Thr Gln Asn Gln Asp Thr Ala Asn Gly Thr Phe Ala Gly Val Leu Ser
 130 135 140

Leu Ser Glu Leu Lys Arg Ser Glu Leu Asn Lys Thr Leu Gln Thr Leu
 145 150 155 160

Ser Glu Thr Tyr Phe Ile Val Cys Ala Thr Ala Glu Ala Gln Ser Thr
 165 170 175

Val Asn Cys Thr Phe Thr Val Lys Leu Asn Glu Thr Met Asn Val Cys

180	185	190
Ala Met Met Val Thr Phe Gln Thr Val Gln Ile Arg Pro Met Glu Gln 195 200 205		
Cys Cys Cys Ser Pro Arg Thr Pro Cys Pro Ser Ser Pro Glu Glu Leu 210 215 220		
Glu Lys Leu Gln Cys Glu Leu Gln Asp Pro Ile Val Cys Leu Ala Asp 225 230 235 240		
Gln Pro His Gly Pro Pro Leu Ser Ser Ser Ser Lys Pro Val Val Pro 245 250 255		
Gln Ala Thr Ile Ile Ser His Val Ala Ser Asp Phe Ser Leu Ala Glu 260 265 270		
Pro Leu Asp His Ala Leu Met Thr Pro Ser Thr Pro Ser Leu Thr Gln 275 280 285		
Glu Ser Asn Leu Pro Ser Pro Gln Pro Thr Ile Pro Leu Ala Ser Ser 290 295 300		
Pro Ala Thr Asp Leu Pro Val Gln Ser Val Val Val Ser Ser Leu Pro 305 310 315 320		
Gln Thr Asp Leu Ser His Thr Leu Ser Pro Val Gln Ser Ser Ile Pro 325 330 335		
Ser Pro Thr Thr Pro Ala Pro Ser Val Pro Thr Glu Leu Val Thr Ile 340 345 350		
Ser Thr Pro Pro Gly Glu Thr Val Val Asn Thr Ser Thr Val Ser Asp 355 360 365		
Leu Glu Ala Gln Val Ser Gln Met Glu Lys Ala Leu Ser Leu Gly Ser 370 375 380		
Leu Glu Pro Asn Leu Ala Gly Glu Met Val Asn Arg Val Ser Lys Leu 385 390 395 400		
Leu His Ser Pro Pro Ala Leu Leu Ala Pro Leu Ala Gln Arg Leu Leu 405 410 415		

Lys Val Val Asp Ala Ile Gly Leu Gln Leu Asn Phe Ser Ser Thr Thr
 420 425 430
 Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn
 435 440 445
 Ala Ser Asn Phe Asn Thr Thr Thr Phe Ala Ala Gln Asp Pro Thr Asn
 450 455 460
 Leu Gln Val Ser Leu Glu Thr Pro Pro Pro Glu Asn Ser Ile Gly Ala
 465 470 475 480
 Ile Thr Leu Pro Ser Ser Leu Met Asn Asn Leu Pro Ala Asn Asp Val
 485 490 495
 Glu Leu Ala Ser Arg Ile Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu
 500 505 510
 Phe Gln Asp Pro Ser Leu Glu Asn Leu Thr Leu Ile Ser Tyr Val Ile
 515 520 525
 Ser Ser Ser Val Thr Asn Met Thr Ile Lys Asn Leu Thr Arg Asn Val
 530 535 540
 Thr Val Ala Leu Lys His Ile Asn Pro Ser Pro Asp Asp Leu Thr Val
 545 550 555 560
 Lys Cys Val Phe Trp Asp Leu Gly Arg Asn Gly Gly Lys Gly Gly Trp
 565 570 575
 Ser Ser Asp Gly Cys Ser Val Lys Asp Lys Arg Met Asn Glu Thr Ile
 580 585 590
 Cys Thr Cys Ser His Leu Thr Ser Phe Gly Ile Leu Leu Asp Leu Ser
 595 600 605
 Arg Thr Ser Leu Pro Pro Ser Gln Met Met Ala Leu Thr Phe Ile Thr
 610 615 620
 Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu Ser Val Thr Leu Val
 625 630 635 640

Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp Tyr Pro Ser Lys Ile
 645 650 655

Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu Asn Leu Ile Phe Leu
 660 665 670

Leu Asp Ser Trp Ile Ala Leu Tyr Asn Thr Arg Gly Phe Cys Ile Ala
 675 680 685

Val Ala Val Phe Leu His Tyr Phe Leu Leu Val Ser Phe Thr Trp Met
 690 695 700

Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu Val Lys Val Phe Asn
 705 710 715 720

Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile Val Gly Trp Gly
 725 730 735

Ile Pro Ala Val Val Val Ser Ile Val Leu Thr Ile Ser Pro Asp Asn
 740 745 750

Tyr Gly Ile Gly Ser Tyr Gly Lys Phe Pro Asn Gly Thr Pro Asp Asp
 755 760 765

Phe Cys Trp Ile Asn Ser Asn Val Val Phe Tyr Ile Thr Val Val Gly
 770 775 780

Tyr Phe Cys Val Ile Phe Leu Leu Asn Val Ser Met Phe Ile Val Val
 785 790 795 800

Leu Val Gln Leu Cys Arg Ile Lys Lys Lys Lys Gln Leu Gly Ala Gln
 805 810 815

Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser Ile Ala Gly Leu Thr Phe
 820 825 830

Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Val
 835 840 845

Asn Val Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly
 850 855 860

Phe Phe Ile Phe Ile Phe Tyr Cys Ala Ala Lys Glu Asn Val Arg Lys
865 870 875 880

Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn
885 890 895

Ser Asp Trp Ser Lys Thr Ala Thr Asn Gly Leu Lys Lys Gln Thr Val
900 905 910

Asn Gln Gly Val Ser Ser Ser Ser Asn Ser Leu Gln Ser Ser Cys Asn
915 920 925

Ser Thr Asn Ser Thr Thr Leu Leu Val Asn Ser Asp Cys Ser Val His
930 935 940

Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe
945 950 955 960

Ser Val Gln Asn Gly Asp Val Cys Leu His Asp Leu Thr Gly Lys Gln
965 970 975

His Met Phe Ser Asp Lys Glu Asp Ser Cys Asn Gly Lys Ser Arg Ile
980 985 990

Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His Phe Ile Glu Gln
995 1000 1005

Met

<210> 32
<211> 1013
<212> PRT
<213> Rattus norvegicus

<400> 32

Met Leu Phe Ser Gly Gly Gln Tyr Ser Pro Val Gly Arg Pro Glu Glu
1 5 10 15

Val Leu Leu Ile Tyr Lys Ile Phe Leu Val Ile Ile Cys Phe His Ala
20 25 30

Ile Leu Val Thr Ser Leu Lys Glu Asn Ala Gly Asn Ser Ser Leu Leu
35 40 45

54

Leu Ala Glu Pro Leu Asp His Ala Leu Met Thr Ser Ser Thr Pro Ser
 275 280 285

Leu Ala Gln Glu Thr Arg Leu Pro Ser Pro Gln Pro Thr Ile Ser Leu
 290 295 300

Thr Ser Ser Pro Ala Ile Asp Leu Pro Val Gln His Val Val Ala Ser
 305 310 315 320

Ser Ser Leu Pro Gln Thr Asp Leu Ser His Thr Leu Ser Pro Val Gln
 325 330 335

Ser Ser Ile Pro Ser Pro Thr Thr Ala Ala Pro Ser Val Pro Glu Lys
 340 345 350

Val Val Ala Ile Ser Thr Pro Pro Gly Glu Thr Val Val Asn Thr Ser
 355 360 365

Ser Val Pro Asp Leu Glu Ala Gln Val Ser Gln Met Glu Lys Ala Leu
 370 375 380

Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu Met Val Asn Arg
 385 390 395 400

Val Ser Lys Leu Leu His Ser Pro Leu Ala Leu Leu Ala Pro Leu Ala
 405 410 415

Gln Arg Leu Leu Lys Val Val Asp Ala Ile Gly Leu Gln Leu Asn Phe
 420 425 430

Ser Ser Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val
 435 440 445

Ile Arg Val Asn Ala Ser Asn Phe Asn Thr Thr Thr Phe Ala Ala Gln
 450 455 460

Asp Pro Ala Asn Leu Gln Val Ser Leu Glu Ala Gln Ala Pro Lys Asn
 465 470 475 480

Ser Ile Gly Ala Ile Thr Leu Pro Ser Ser Leu Met Ser Asn Leu Pro
 485 490 495

Ala Ser Glu Val Glu Leu Ala Ser Arg Val Gln Phe Asn Phe Phe Glu
 500 505 510

Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu Ser Leu Ile
 515 520 525

Ser Tyr Val Ile Ser Ser Ser Val Thr Asn Met Thr Ile Lys Asn Leu
 530 535 540

Thr Arg Asn Val Thr Val Ala Leu Lys His Ile Asn Pro Ser Gln Asp
 545 550 555 560

Asp Leu Thr Val Lys Cys Val Phe Trp Asp Leu Asn Arg Asn Gly Gly
 565 570 575

Arg Gly Gly Trp Ser Ser Asp Gly Cys Ser Val Lys Glu Lys Arg Met
 580 585 590

Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe Gly Ile Leu
 595 600 605

Leu Asp Leu Ser Arg Thr Ser Leu Pro Pro Ser Gln Met Met Ala Leu
 610 615 620

Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu Ser
 625 630 635 640

Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp Tyr
 645 650 655

Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu Asn
 660 665 670

Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Asn Ala Arg Gly
 675 680 685

Phe Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe Leu Leu Val Ser
 690 695 700

Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu Val
 705 710 715 720

Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile

725

730

735

Val Gly Trp Gly Ile Pro Ala Val Val Val Ser Ile Val Leu Thr Ile
 740 745 750

Ser Pro Asp Asn Tyr Gly Ile Gly Ser Tyr Gly Lys Phe Pro Asn Gly
 755 760 765

Thr Pro Asp Asp Phe Cys Trp Ile Asn Ser Ser Val Val Phe Tyr Ile
 770 775 780

Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn Val Ser Met
 785 790 795 800

Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys Lys Lys Gln
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Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser Ile Ala
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Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe Phe Ala
 835 840 845

Trp Gly Pro Val Asn Leu Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn
 850 855 860

Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Ala Ala Lys Glu
 865 870 875 880

Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg
 885 890 895

Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn Gly Leu Lys
 900 905 910

Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn Ser Leu Gln
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Ser Ser Cys Asn Ser Thr Asn Ser Thr Thr Leu Leu Val Asn Ser Asp
 930 935 940

Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn
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Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu His Asp Leu
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Thr Gly Lys Gln His Met Phe Ser Asp Lys Glu Asp Ser Cys Asn Gly
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Lys Ser Arg Met Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His
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Phe Ile Glu Gln Met
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 <212> PRT
 <213> Homo sapiens

<400> 34

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Val Leu Leu Thr Phe Lys Ile Phe Leu Val Ile Ile Cys Leu His Val
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Val Leu Val Thr Ser Leu Glu Glu Asp Thr Asp Asn Ser Ser Leu Ser
 35 40 45

Pro Pro Pro Ala Lys Leu Ser Val Val Ser Phe Ala Pro Ser Ser Asn
 50 55 60

Gly Thr Pro Glu Val Glu Thr Thr Ser Leu Asn Asp Val Thr Leu Ser
 65 70 75 80

Leu Leu Pro Ser Asn Glu Thr Glu Lys Thr Lys Ile Thr Ile Val Lys
 85 90 95

Thr Phe Asn Ala Ser Gly Val Lys Pro Gln Arg Asn Ile Cys Asn Leu
 100 105 110

Ser Ser Ile Cys Asn Asp Ser Ala Phe Phe Arg Gly Glu Ile Met Phe
 115 120 125

Gln Tyr Asp Lys Glu Ser Thr Val Pro Gln Asn Gln His Ile Thr Asn
 130 135 140

Gly Thr Leu Thr Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Ser Glu
 145 150 155 160

Leu Asn Lys Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Met Cys
 165 170 175

Ala Thr Ala Glu Ala Gln Ser Thr Leu Asn Cys Thr Phe Thr Ile Lys
 180 185 190

Leu Asn Asn Thr Met Asn Ala Cys Ala Ala Ile Ala Ala Leu Glu Arg
 195 200 205

Val Lys Ile Arg Pro Met Glu His Cys Cys Cys Ser Val Arg Ile Pro
 210 215 220

Cys Pro Ser Ser Pro Glu Glu Leu Gly Lys Leu Gln Cys Asp Leu Gln
 225 230 235 240

Asp Pro Ile Val Cys Leu Ala Asp His Pro Arg Gly Pro Pro Phe Ser
 245 250 255

Ser Ser Gln Ser Ile Pro Val Val Pro Arg Ala Thr Val Leu Ser Gln
 260 265 270

Val Pro Lys Ala Thr Ser Phe Ala Glu Pro Pro Asp Tyr Ser Pro Val
 275 280 285

Thr His Asn Val Pro Ser Pro Ile Gly Glu Ile Gln Pro Leu Ser Pro
 290 295 300

Gln Pro Ser Ala Pro Ile Ala Ser Ser Pro Ala Ile Asp Met Pro Pro
 305 310 315 320

Gln Ser Glu Thr Ile Ser Ser Pro Met Pro Gln Thr His Val Ser Gly
 325 330 335

Thr Pro Pro Pro Val Lys Ala Ser Phe Ser Ser Pro Thr Val Ser Ala
 340 345 350

Pro Ala Asn Val Asn Thr Thr Ser Ala Pro Pro Val Gln Thr Asp Ile
 355 360 365

Val Asn Thr Ser Ser Ile Ser Asp Leu Glu Asn Gln Val Leu Gln Met
 370 375 380

Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu
 385 390 395 400

Met Ile Asn Gln Val Ser Arg Leu Leu His Ser Pro Pro Asp Met Leu
 405 410 415

Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Asp Ile Gly Leu
 420 425 430

Gln Leu Asn Phe Ser Asn Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu
 435 440 445

Ala Leu Ala Val Ile Arg Val Asn Ala Ser Ser Phe Asn Thr Thr Thr
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Phe Val Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu Glu Thr Gln
 465 470 475 480

Ala Pro Glu Asn Ser Ile Gly Thr Ile Thr Leu Pro Ser Ser Leu Met
 485 490 495

Asn Asn Leu Pro Ala His Asp Met Glu Leu Ala Ser Arg Val Gln Phe
 500 505 510

Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn
 515 520 525

Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Ala Asn Leu Thr
 530 535 540

Val Arg Asn Leu Thr Arg Asn Val Thr Val Thr Leu Lys His Ile Asn
 545 550 555 560

Pro Ser Gln Asp Glu Leu Thr Val Arg Cys Val Phe Trp Asp Leu Gly
 565 570 575

Arg Asn Gly Gly Arg Gly Gly Trp Ser Asp Asn Gly Cys Ser Val Lys
 580 585 590

Asp Arg Arg Leu Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser
 595 600 605

Phe Gly Val Leu Leu Asp Leu Ser Arg Thr Ser Val Leu Pro Ala Gln
 610 615 620

Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser
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Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile
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Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu
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Leu Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr
 675 680 685

Lys Met Gln Gly Leu Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe
 690 695 700

Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr
 705 710 715 720

Leu Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu
 725 730 735

Lys Phe Cys Ile Val Gly Trp Gly Val Pro Ala Val Val Val Thr Ile
 740 745 750

Ile Leu Thr Ile Ser Pro Asp Asn Tyr Gly Leu Gly Ser Tyr Gly Lys
 755 760 765

Phe Pro Asn Gly Ser Pro Asp Asp Phe Cys Trp Ile Asn Asn Asn Ala
 770 775 780

Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu
 785 790 795 800

Asn Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys
 805 810 815

Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu
 820 825 830

Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe
 835 840 845

Ala Phe Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe

850 855 860
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 Val Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys
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 Gly Lys Leu Arg Leu Ala Glu Asn Ser Gly Asn Ala Ser Thr Glu Arg
 900 905 910
 Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu His Asp
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 Phe Thr Gly Lys Gln His Met Phe Asn Glu Lys Glu Asp Ser Cys Asn
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 Gly Lys Gly Arg Met Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu
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 His Phe Ile Glu Gln Met
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 35 40 45
 Ser Glu Leu Ala Val Arg Met Val Phe Ser Val Arg Gln Cys Gly His
 50 55 60
 Val Gly Arg Thr Glu Glu Val Leu Leu Thr Phe Lys Ile Phe Leu Val
 65 70 75 80

Ile	Ile	Cys	Leu	His	Val	Val	Leu	Val	Thr	Ser	Leu	Glu	Glu	Asp	Thr	85	90	95	
Asp	Asn	Ser	Ser	Leu	Ser	Pro	Pro	Pro	Ala	Lys	Leu	Ser	Val	Val	Ser	100	105	110	
Phe	Ala	Pro	Ser	Ser	Asn	Gly	Thr	Pro	Glu	Val	Glu	Thr	Thr	Ser	Leu	115	120	125	
Asn	Asp	Val	Thr	Leu	Ser	Leu	Leu	Pro	Ser	Asn	Glu	Thr	Glu	Lys	Thr	130	135	140	
Lys	Ile	Thr	Ile	Val	Lys	Thr	Phe	Asn	Ala	Ser	Gly	Val	Lys	Pro	Gln	145	150	155	160
Arg	Asn	Ile	Cys	Asn	Leu	Ser	Ser	Ile	Cys	Asn	Asp	Ser	Ala	Phe	Phe	165	170	175	
Arg	Gly	Glu	Ile	Met	Phe	Gln	Tyr	Asp	Lys	Glu	Ser	Thr	Val	Pro	Gln	180	185	190	
Asn	Gln	His	Ile	Thr	Asn	Gly	Thr	Leu	Thr	Gly	Val	Leu	Ser	Leu	Ser	195	200	205	
Glu	Leu	Lys	Arg	Ser	Glu	Leu	Asn	Lys	Thr	Leu	Gln	Thr	Leu	Ser	Glu	210	215	220	
Thr	Tyr	Phe	Ile	Met	Cys	Ala	Thr	Ala	Glu	Ala	Gln	Ser	Thr	Leu	Asn	225	230	235	240
Cys	Thr	Phe	Thr	Ile	Lys	Leu	Asn	Asn	Thr	Met	Asn	Ala	Cys	Ala	Ala	245	250	255	
Ile	Ala	Ala	Leu	Glu	Arg	Val	Lys	Ile	Arg	Pro	Met	Glu	His	Cys	Cys	260	265	270	
Cys	Ser	Val	Arg	Ile	Pro	Cys	Pro	Ser	Ser	Pro	Glu	Glu	Leu	Gly	Lys	275	280	285	
Leu	Gln	Cys	Asp	Leu	Gln	Asp	Pro	Ile	Val	Cys	Leu	Ala	Asp	His	Pro	290	295	300	

Arg Gly Pro Pro Phe Ser Ser Ser Gln Ser Ile Pro Val Val Pro Arg
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Ala Thr Val Leu Ser Gln Val Pro Lys Ala Thr Ser Phe Ala Glu Pro
 325 330 335

Pro Asp Tyr Ser Pro Val Thr His Asn Val Pro Ser Pro Ile Gly Glu
 340 345 350

Ile Gln Pro Leu Ser Pro Gln Pro Ser Ala Pro Ile Ala Ser Ser Pro
 355 360 365

Ala Ile Asp Met Pro Pro Gln Ser Glu Thr Ile Ser Ser Pro Met Pro
 370 375 380

Gln Thr His Val Ser Gly Thr Pro Pro Pro Val Lys Ala Ser Phe Ser
 385 390 395 400

Ser Pro Thr Val Ser Ala Pro Ala Asn Val Asn Thr Thr Ser Ala Pro
 405 410 415

Pro Val Gln Thr Asp Ile Val Asn Thr Ser Ser Ile Ser Asp Leu Glu
 420 425 430

Asn Gln Val Leu Gln Met Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu
 435 440 445

Pro Asn Leu Ala Gly Glu Met Ile Asn Gln Val Ser Arg Leu Leu His
 450 455 460

Ser Pro Pro Asp Met Leu Ala Pro Leu Ala Gln Arg Leu Leu Lys Val
 465 470 475 480

Val Asp Asp Ile Gly Leu Gln Leu Asn Phe Ser Asn Thr Thr Ile Ser
 485 490 495

Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn Ala Ser
 500 505 510

Ser Phe Asn Thr Thr Thr Phe Val Ala Gln Asp Pro Ala Asn Leu Gln
 515 520 525

Val Ser Leu Glu Thr Gln Ala Pro Glu Asn Ser Ile Gly Thr Ile Thr

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				Ala
				His
				Asp
				Met
				Glu
				Leu 560
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				Asn
				Phe
				Phe
				Glu 570
				Thr
				Pro
				Ala
				Leu
				Phe
				Gln 575
Asp	Pro	Ser	Leu 580	Glu
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				Leu
				Ser
				Leu 585
				Ile
				Ser
				Tyr
				Val
				Ile
				Ser 590
Ser	Val	Ala	Asn	Leu 595
				Thr
				Val
				Arg
				Asn
				Leu
				Thr
				Arg
				Asn
				Val
				Thr
				Val 600
Thr	Leu	Lys	His	Ile
				Asn
				Pro
				Ser
				Gln
				Asp
				Glu
				Leu 610
				Thr
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				Arg
				Cys
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				Arg
				Asn
				Gly
				Gly
				Arg
				Gly
				Gly
				Trp
				Ser
				Asp 640
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				Asp
				Arg
				Arg
				Leu 650
				Asn
				Glu
				Thr
				Ile
				Cys
				Thr 655
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				Phe
				Gly
				Val
				Leu 665
				Leu
				Leu
				Asp
				Leu 670
Ser	Val	Leu 675	Pro	Ala
				Gln
				Met
				Met
				Ala
				Leu
				Thr
				Phe
				Ile
				Thr
				Tyr
				Ile 685
Gly	Cys	Gly	Leu 690	Ser
				Ser
				Ile
				Phe
				Leu
				Ser
				Val
				Thr
				Leu 700
				Val
				Thr
				Tyr
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				Ile
				Arg
				Arg
				Asp
				Tyr
				Pro
				Ser
				Lys
				Ile
				Leu
				Ile 705
Gln	Leu	Cys	Ala	Ala
				Leu
				Leu
				Leu
				Leu
				Asn
				Leu
				Val
				Phe
				Leu
				Leu
				Asp 720
Ser	Trp	Ile	Ala	Leu
				Tyr
				Lys
				Met
				Gln
				Gly
				Leu
				Cys
				Ile
				Ser
				Val
				Ala 740
Val	Phe	Leu	His	Tyr
				Phe
				Leu
				Leu
				Val
				Ser
				Phe
				Thr
				Trp
				Met
				Gly
				Leu 755
				Leu
				760
				765

Glu Ala Phe His Met Tyr Leu Ala Leu Val Lys Val Phe Asn Thr Tyr
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Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile Val Gly Trp Gly Val Pro
 785 790 795 800

Ala Val Val Val Thr Ile Ile Leu Thr Ile Ser Pro Asp Asn Tyr Gly
 805 810 815

Leu Gly Ser Tyr Gly Lys Phe Pro Asn Gly Ser Pro Asp Asp Phe Cys
 820 825 830

Trp Ile Asn Asn Asn Ala Val Phe Tyr Ile Thr Val Val Gly Tyr Phe
 835 840 845

Cys Val Ile Phe Leu Leu Asn Val Ser Met Phe Ile Val Val Leu Val
 850 855 860

Gln Leu Cys Arg Ile Lys Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys
 865 870 875 880

Thr Ser Ile Gln Asp Leu Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu
 885 890 895

Gly Ile Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Val Asn Val
 900 905 910

Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe
 915 920 925

Ile Phe Ile Phe Tyr Cys Val Ala Lys Glu Asn Val Arg Lys Gln Trp
 930 935 940

Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn Ser Gly
 945 950 955 960

Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly
 965 970 975

Asp Val Cys Leu His Asp Phe Thr Gly Lys Gln His Met Phe Asn Glu
 980 985 990

Lys Glu Asp Ser Cys Asn Gly Lys Gly Arg Met Ala Leu Arg Arg Thr
 995 1000 1005

Ser Lys Arg Gly Ser Leu His Phe Ile Glu Gln Met
 1010 1015 1020

<210> 36
 <211> 1033
 <212> PRT
 <213> Homo sapiens

<400> 36

Gly Ser Gly Gly Gly Gly Ala Glu Ala Ala Gly Gly Gly Arg Arg Ala
 1 5 10 15

Ala Ala Pro Glu Arg Gly Lys Gly Gly Pro Asp Gly Ala Ser Ser Gln
 20 25 30

Pro Glu Asp Ala Ser Gly Arg Cys Ala Gln Arg Phe Ser Thr Leu Phe
 35 40 45

Ser Glu Leu Ala Val Arg Met Val Phe Ser Val Arg Gln Cys Gly His
 50 55 60

Val Gly Arg Thr Glu Glu Val Leu Leu Thr Phe Lys Ile Phe Leu Val
 65 70 75 80

Ile Ile Cys Leu His Val Val Leu Val Thr Ser Leu Glu Glu Asp Thr
 85 90 95

Asp Asn Ser Ser Leu Ser Pro Pro Pro Asp Val Thr Leu Ser Leu Leu
 100 105 110

Pro Ser Asn Glu Thr Gly Val Lys Pro Gln Arg Asn Ile Cys Asn Leu
 115 120 125

Ser Ser Ile Cys Asn Asp Ser Ala Phe Phe Arg Gly Glu Ile Met Phe
 130 135 140

Gln Tyr Asp Lys Glu Ser Thr Val Pro Gln Asn Gln His Ile Thr Asn
 145 150 155 160

Gly Thr Leu Thr Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Ser Glu

Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu
 405 410 415

Met Ile Asn Gln Val Ser Arg Leu Leu His Ser Pro Pro Asp Met Leu
 420 425 430

Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Asp Ile Gly Leu
 435 440 445

Gln Leu Asn Phe Ser Asn Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu
 450 455 460

Ala Leu Ala Val Ile Arg Val Asn Ala Ser Ser Phe Asn Thr Thr Thr
 465 470 475 480

Phe Val Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu Glu Thr Gln
 485 490 495

Ala Pro Glu Asn Ser Ile Gly Thr Ile Thr Leu Pro Ser Ser Leu Met
 500 505 510

Asn Asn Leu Pro Ala His Asp Met Glu Leu Ala Ser Arg Val Gln Phe
 515 520 525

Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn
 530 535 540

Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Ala Asn Leu Thr
 545 550 555 560

Val Arg Asn Leu Thr Arg Asn Val Thr Val Thr Leu Lys His Ile Asn
 565 570 575

Pro Ser Gln Asp Glu Leu Thr Val Arg Cys Val Phe Trp Asp Leu Gly
 580 585 590

Arg Asn Gly Gly Arg Gly Gly Trp Ser Asp Asn Gly Cys Ser Val Lys
 595 600 605

Asp Arg Arg Leu Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser
 610 615 620

Phe Gly Val Leu Leu Asp Leu Ser Arg Thr Ser Val Leu Pro Ala Gln
625 630 635 640

Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser
645 650 655

Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile
660 665 670

Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu
675 680 685

Leu Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr
690 695 700

Lys Met Gln Gly Leu Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe
705 710 715 720

Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr
725 730 735

Leu Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu
740 745 750

Lys Phe Cys Ile Val Gly Trp Gly Val Pro Ala Val Val Val Thr Ile
755 760 765

Ile Leu Thr Ile Ser Pro Asp Asn Tyr Gly Leu Gly Ser Tyr Gly Lys
770 775 780

Phe Pro Asn Gly Ser Pro Asp Asp Phe Cys Trp Ile Asn Asn Asn Ala
785 790 795 800

Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu
805 810 815

Asn Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys
820 825 830

Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu
835 840 845

Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe
850 855 860

Ala Phe Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe
865 870 875 880

Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys
885 890 895

Val Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys
900 905 910

Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr
915 920 925

Asn Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser
930 935 940

Asn Ser Leu Gln Ser Ser Ser Asn Ser Thr Asn Ser Thr Thr Leu Leu
945 950 955 960

Val Asn Asn Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser
965 970 975

Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys
980 985 990

Leu His Asp Phe Thr Gly Lys Gln His Met Phe Asn Glu Lys Glu Asp
995 1000 1005

Ser Cys Asn Gly Lys Gly Arg Met Ala Leu Arg Arg Thr Ser Lys
1010 1015 1020

Arg Gly Ser Leu His Phe Ile Glu Gln Met
1025 1030

<210> 37
<211> 979
<212> PRT
<213> Homo sapiens

<400> 37

Met Val Phe Ser Val Arg Gln Cys Gly His Val Gly Arg Thr Glu Glu
1 5 10 15

Val	Leu	Leu	Thr	Phe	Lys	Ile	Phe	Leu	Val	Ile	Ile	Cys	Leu	His	Val
			20					25					30		
Val	Leu	Val	Thr	Ser	Leu	Glu	Glu	Asp	Thr	Asp	Asn	Ser	Ser	Leu	Ser
		35					40					45			
Pro	Pro	Pro	Asp	Val	Thr	Leu	Ser	Leu	Leu	Pro	Ser	Asn	Glu	Thr	Gly
	50					55					60				
Val	Lys	Pro	Gln	Arg	Asn	Ile	Cys	Asn	Leu	Ser	Ser	Ile	Cys	Asn	Asp
65					70					75					80
Ser	Ala	Phe	Phe	Arg	Gly	Glu	Ile	Met	Phe	Gln	Tyr	Asp	Lys	Glu	Ser
				85					90					95	
Thr	Val	Pro	Gln	Asn	Gln	His	Ile	Thr	Asn	Gly	Thr	Leu	Thr	Gly	Val
			100					105					110		
Leu	Ser	Leu	Ser	Glu	Leu	Lys	Arg	Ser	Glu	Leu	Asn	Lys	Thr	Leu	Gln
		115					120					125			
Thr	Leu	Ser	Glu	Thr	Tyr	Phe	Ile	Met	Cys	Ala	Thr	Ala	Glu	Ala	Gln
	130					135					140				
Ser	Thr	Leu	Asn	Cys	Thr	Phe	Thr	Ile	Lys	Leu	Asn	Asn	Thr	Met	Asn
145					150					155					160
Ala	Cys	Ala	Ala	Ile	Ala	Ala	Leu	Glu	Arg	Val	Lys	Ile	Arg	Pro	Met
				165					170					175	
Glu	His	Cys	Cys	Cys	Ser	Val	Arg	Ile	Pro	Cys	Pro	Ser	Ser	Pro	Glu
			180					185					190		
Glu	Leu	Gly	Lys	Leu	Gln	Cys	Asp	Leu	Gln	Asp	Pro	Ile	Val	Cys	Leu
		195					200					205			
Ala	Asp	His	Pro	Arg	Gly	Pro	Pro	Phe	Ser	Ser	Ser	Gln	Ser	Ile	Pro
	210					215					220				
Val	Val	Pro	Arg	Ala	Thr	Val	Leu	Ser	Gln	Val	Pro	Lys	Ala	Thr	Ser
225					230					235					240

Phe Ala Glu Pro Pro Asp Tyr Ser Pro Val Thr His Asn Val Pro Ser
 245 250 255

Pro Ile Gly Glu Ile Gln Pro Leu Ser Pro Gln Pro Ser Ala Pro Ile
 260 265 270

Ala Ser Ser Pro Ala Ile Asp Met Pro Pro Gln Ser Glu Thr Ile Ser
 275 280 285

Ser Pro Met Pro Gln Thr His Val Ser Gly Thr Pro Pro Pro Val Lys
 290 295 300

Ala Ser Phe Ser Ser Pro Thr Val Ser Ala Pro Ala Asn Val Asn Thr
 305 310 315 320

Thr Ser Ala Pro Pro Val Gln Thr Asp Ile Val Asn Thr Ser Ser Ile
 325 330 335

Ser Asp Leu Glu Asn Gln Val Leu Gln Met Glu Lys Ala Leu Ser Leu
 340 345 350

Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu Met Ile Asn Gln Val Ser
 355 360 365

Arg Leu Leu His Ser Pro Pro Asp Met Leu Ala Pro Leu Ala Gln Arg
 370 375 380

Leu Leu Lys Val Val Asp Asp Ile Gly Leu Gln Leu Asn Phe Ser Asn
 385 390 395 400

Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg
 405 410 415

Val Asn Ala Ser Ser Phe Asn Thr Thr Thr Phe Val Ala Gln Asp Pro
 420 425 430

Ala Asn Leu Gln Val Ser Leu Glu Thr Gln Ala Pro Glu Asn Ser Ile
 435 440 445

Gly Thr Ile Thr Leu Pro Ser Ser Leu Met Asn Asn Leu Pro Ala His
 450 455 460

Asp Met Glu Leu Ala Ser Arg Val Gln Phe Asn Phe Phe Glu Thr Pro
 465 470 475 480

Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu Ser Leu Ile Ser Tyr
 485 490 495

Val Ile Ser Ser Ser Val Ala Asn Leu Thr Val Arg Asn Leu Thr Arg
 500 505 510

Asn Val Thr Val Thr Leu Lys His Ile Asn Pro Ser Gln Asp Glu Leu
 515 520 525

Thr Val Arg Cys Val Phe Trp Asp Leu Gly Arg Asn Gly Gly Arg Gly
 530 535 540

Gly Trp Ser Asp Asn Gly Cys Ser Val Lys Asp Arg Arg Leu Asn Glu
 545 550 555 560

Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe Gly Val Leu Leu Asp
 565 570 575

Leu Ser Arg Thr Ser Val Leu Pro Ala Gln Met Met Ala Leu Thr Phe
 580 585 590

Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu Ser Val Thr
 595 600 605

Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp Tyr Pro Ser
 610 615 620

Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu Asn Leu Val
 625 630 635 640

Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Lys Met Gln Gly Leu Cys
 645 650 655

Ile Ser Val Ala Val Phe Leu His Tyr Phe Leu Leu Val Ser Phe Thr
 660 665 670

Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu Val Lys Val
 675 680 685

Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile Val Gly

690					695					700					
Trp	Gly	Val	Pro	Ala	Val	Val	Val	Thr	Ile	Ile	Leu	Thr	Ile	Ser	Pro
705					710					715					720
Asp	Asn	Tyr	Gly	Leu	Gly	Ser	Tyr	Gly	Lys	Phe	Pro	Asn	Gly	Ser	Pro
				725					730					735	
Asp	Asp	Phe	Cys	Trp	Ile	Asn	Asn	Asn	Ala	Val	Phe	Tyr	Ile	Thr	Val
			740					745					750		
Val	Gly	Tyr	Phe	Cys	Val	Ile	Phe	Leu	Leu	Asn	Val	Ser	Met	Phe	Ile
		755					760					765			
Val	Val	Leu	Val	Gln	Leu	Cys	Arg	Ile	Lys	Lys	Lys	Lys	Gln	Leu	Gly
	770					775						780			
Ala	Gln	Arg	Lys	Thr	Ser	Ile	Gln	Asp	Leu	Arg	Ser	Ile	Ala	Gly	Leu
785						790					795				800
Thr	Phe	Leu	Leu	Gly	Ile	Thr	Trp	Gly	Phe	Ala	Phe	Phe	Ala	Trp	Gly
				805					810					815	
Pro	Val	Asn	Val	Thr	Phe	Met	Tyr	Leu	Phe	Ala	Ile	Phe	Asn	Thr	Leu
			820					825					830		
Gln	Gly	Phe	Phe	Ile	Phe	Ile	Phe	Tyr	Cys	Val	Ala	Lys	Glu	Asn	Val
		835					840					845			
Arg	Lys	Gln	Trp	Arg	Arg	Tyr	Leu	Cys	Cys	Gly	Lys	Leu	Arg	Leu	Ala
	850					855					860				
Glu	Asn	Ser	Asp	Trp	Ser	Lys	Thr	Ala	Thr	Asn	Gly	Leu	Lys	Lys	Gln
865						870					875				880
Thr	Val	Asn	Gln	Gly	Val	Ser	Ser	Ser	Ser	Asn	Ser	Leu	Gln	Ser	Ser
				885					890					895	
Ser	Asn	Ser	Thr	Asn	Ser	Thr	Thr	Leu	Leu	Val	Asn	Asn	Asp	Cys	Ser
			900					905					910		
Val	His	Ala	Ser	Gly	Asn	Gly	Asn	Ala	Ser	Thr	Glu	Arg	Asn	Gly	Val
		915					920					925			

Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu His Asp Phe Thr Gly
 930 , 935 940

Lys Gln His Met Phe Asn Glu Lys Glu Asp Ser Cys Asn Gly Lys Gly
 945 950 955 960

Arg Met Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His Phe Ile
 965 970 975

Glu Gln Met

<210> 38
 <211> 1047
 <212> PRT
 <213> Homo sapiens

<400> 38

Gly Ser Gly Gly Gly Gly Ala Glu Ala Ala Gly Gly Gly Arg Arg Ala
 1 5 10 15

Ala Ala Pro Glu Arg Gly Lys Gly Gly Pro Asp Gly Ala Ser Ser Gln
 20 25 30

Pro Glu Asp Ala Ser Gly Arg Cys Ala Gln Arg Phe Ser Thr Leu Phe
 35 40 45

Ser Glu Leu Ala Val Arg Met Val Phe Ser Val Arg Gln Cys Gly His
 50 55 60

Val Gly Arg Thr Glu Glu Val Leu Leu Thr Phe Lys Ile Phe Leu Val
 65 70 75 80

Ile Ile Cys Leu His Val Val Leu Val Thr Ser Leu Glu Glu Asp Thr
 85 90 95

Asp Asn Ser Ser Leu Ser Pro Pro Pro Asp Val Thr Leu Ser Leu Leu
 100 105 110

Pro Ser Asn Glu Thr Glu Lys Thr Lys Ile Thr Ile Val Lys Thr Phe
 115 120 125

Asn Ala Ser Gly Val Lys Pro Gln Arg Asn Ile Cys Asn Leu Ser Ser
 130 135 140

Ile Cys Asn Asp Ser Ala Phe Phe Arg Gly Glu Ile Met Phe Gln Tyr
 145 150 155 160

Asp Lys Glu Ser Thr Val Pro Gln Asn Gln His Ile Thr Asn Gly Thr
 165 170 175

Leu Thr Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Ser Glu Leu Asn
 180 185 190

Lys Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Met Cys Ala Thr
 195 200 205

Ala Glu Ala Gln Ser Thr Leu Asn Cys Thr Phe Thr Ile Lys Leu Asn
 210 215 220

Asn Thr Met Asn Ala Cys Ala Ala Ile Ala Ala Leu Glu Arg Val Lys
 225 230 235 240

Ile Arg Pro Met Glu His Cys Cys Cys Ser Val Arg Ile Pro Cys Pro
 245 250 255

Ser Ser Pro Glu Glu Leu Gly Lys Leu Gln Cys Asp Leu Gln Asp Pro
 260 265 270

Ile Val Cys Leu Ala Asp His Pro Arg Gly Pro Pro Phe Ser Ser Ser
 275 280 285

Gln Ser Ile Pro Val Val Pro Arg Ala Thr Val Leu Ser Gln Val Pro
 290 295 300

Lys Ala Thr Ser Phe Ala Glu Pro Pro Asp Tyr Ser Pro Val Thr His
 305 310 315 320

Asn Val Pro Ser Pro Ile Gly Glu Ile Gln Pro Leu Ser Pro Gln Pro
 325 330 335

Ser Ala Pro Ile Ala Ser Ser Pro Ala Ile Asp Met Pro Pro Gln Ser
 340 345 350

Glu Thr Ile Ser Ser Pro Met Pro Gln Thr His Val Ser Gly Thr Pro

355		360		365											
Pro	Pro	Val	Lys	Ala	Ser	Phe	Ser	Ser	Pro	Thr	Val	Ser	Ala	Pro	Ala
	370					375					380				
Asn	Val	Asn	Thr	Thr	Ser	Ala	Pro	Pro	Val	Gln	Thr	Asp	Ile	Val	Asn
385					390					395					400
Thr	Ser	Ser	Ile	Ser	Asp	Leu	Glu	Asn	Gln	Val	Leu	Gln	Met	Glu	Lys
				405					410					415	
Ala	Leu	Ser	Leu	Gly	Ser	Leu	Glu	Pro	Asn	Leu	Ala	Gly	Glu	Met	Ile
			420					425					430		
Asn	Gln	Val	Ser	Arg	Leu	Leu	His	Ser	Pro	Pro	Asp	Met	Leu	Ala	Pro
		435					440					445			
Leu	Ala	Gln	Arg	Leu	Leu	Lys	Val	Val	Asp	Asp	Ile	Gly	Leu	Gln	Leu
	450					455					460				
Asn	Phe	Ser	Asn	Thr	Thr	Ile	Ser	Leu	Thr	Ser	Pro	Ser	Leu	Ala	Leu
465					470					475					480
Ala	Val	Ile	Arg	Val	Asn	Ala	Ser	Ser	Phe	Asn	Thr	Thr	Thr	Phe	Val
				485					490					495	
Ala	Gln	Asp	Pro	Ala	Asn	Leu	Gln	Val	Ser	Leu	Glu	Thr	Gln	Ala	Pro
			500					505					510		
Glu	Asn	Ser	Ile	Gly	Thr	Ile	Thr	Leu	Pro	Ser	Ser	Leu	Met	Asn	Asn
		515					520					525			
Leu	Pro	Ala	His	Asp	Met	Glu	Leu	Ala	Ser	Arg	Val	Gln	Phe	Asn	Phe
		530				535					540				
Phe	Glu	Thr	Pro	Ala	Leu	Phe	Gln	Asp	Pro	Ser	Leu	Glu	Asn	Leu	Ser
545					550					555					560
Leu	Ile	Ser	Tyr	Val	Ile	Ser	Ser	Ser	Val	Ala	Asn	Leu	Thr	Val	Arg
				565					570					575	
Asn	Leu	Thr	Arg	Asn	Val	Thr	Val	Thr	Leu	Lys	His	Ile	Asn	Pro	Ser
			580					585					590		

Gln Asp Glu Leu Thr Val Arg Cys Val Phe Trp Asp Leu Gly Arg Asn
 595 600 605

Gly Gly Arg Gly Gly Trp Ser Asp Asn Gly Cys Ser Val Lys Asp Arg
 610 615 620

Arg Leu Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe Gly
 625 630 635 640

Val Leu Leu Asp Leu Ser Arg Thr Ser Val Leu Pro Ala Gln Met Met
 645 650 655

Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe
 660 665 670

Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg
 675 680 685

Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu
 690 695 700

Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Lys Met
 705 710 715 720

Gln Gly Leu Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe Leu Leu
 725 730 735

Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu Ala
 740 745 750

Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe
 755 760 765

Cys Ile Val Gly Trp Gly Val Pro Ala Val Val Val Thr Ile Ile Leu
 770 775 780

Thr Ile Ser Pro Asp Asn Tyr Gly Leu Gly Ser Tyr Gly Lys Phe Pro
 785 790 795 800

Asn Gly Ser Pro Asp Asp Phe Cys Trp Ile Asn Asn Asn Ala Val Phe
 805 810 815

Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn Val
 820 825 830

Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys Lys
 835 840 845

Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser
 850 855 860

Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe
 865 870 875 880

Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe Ala Ile
 885 890 895

Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Val Ala
 900 905 910

Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys
 915 920 925

Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn Gly
 930 935 940

Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn Ser
 945 950 955 960

Leu Gln Ser Ser Ser Asn Ser Thr Asn Ser Thr Thr Leu Leu Val Asn
 965 970 975

Asn Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu
 980 985 990

Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu His
 995 1000 1005

Asp Phe Thr Gly Lys Gln His Met Phe Asn Glu Lys Glu Asp Ser
 1010 1015 1020

Cys Asn Gly Lys Gly Arg Met Ala Leu Arg Arg Thr Ser Lys Arg
 1025 1030 1035

Gly Ser Leu His Phe Ile Glu Gln Met
 1040 1045

<210> 39
 <211> 993
 <212> PRT
 <213> Homo sapiens

<400> 39

Met Val Phe Ser Val Arg Gln Cys Gly His Val Gly Arg Thr Glu Glu
 1 5 10 15

Val Leu Leu Thr Phe Lys Ile Phe Leu Val Ile Ile Cys Leu His Val
 20 25 30

Val Leu Val Thr Ser Leu Glu Glu Asp Thr Asp Asn Ser Ser Leu Ser
 35 40 45

Pro Pro Pro Asp Val Thr Leu Ser Leu Leu Pro Ser Asn Glu Thr Glu
 50 55 60

Lys Thr Lys Ile Thr Ile Val Lys Thr Phe Asn Ala Ser Gly Val Lys
 65 70 75 80

Pro Gln Arg Asn Ile Cys Asn Leu Ser Ser Ile Cys Asn Asp Ser Ala
 85 90 95

Phe Phe Arg Gly Glu Ile Met Phe Gln Tyr Asp Lys Glu Ser Thr Val
 100 105 110

Pro Gln Asn Gln His Ile Thr Asn Gly Thr Leu Thr Gly Val Leu Ser
 115 120 125

Leu Ser Glu Leu Lys Arg Ser Glu Leu Asn Lys Thr Leu Gln Thr Leu
 130 135 140

Ser Glu Thr Tyr Phe Ile Met Cys Ala Thr Ala Glu Ala Gln Ser Thr
 145 150 155 160

Leu Asn Cys Thr Phe Thr Ile Lys Leu Asn Asn Thr Met Asn Ala Cys
 165 170 175

Ala Ala Ile Ala Ala Leu Glu Arg Val Lys Ile Arg Pro Met Glu His
 180 185 190

Cys	Cys	Cys	Ser	Val	Arg	Ile	Pro	Cys	Pro	Ser	Ser	Pro	Glu	Glu	Leu
	195						200					205			
Gly	Lys	Leu	Gln	Cys	Asp	Leu	Gln	Asp	Pro	Ile	Val	Cys	Leu	Ala	Asp
	210					215					220				
His	Pro	Arg	Gly	Pro	Pro	Phe	Ser	Ser	Ser	Gln	Ser	Ile	Pro	Val	Val
225					230					235					240
Pro	Arg	Ala	Thr	Val	Leu	Ser	Gln	Val	Pro	Lys	Ala	Thr	Ser	Phe	Ala
				245					250					255	
Glu	Pro	Pro	Asp	Tyr	Ser	Pro	Val	Thr	His	Asn	Val	Pro	Ser	Pro	Ile
			260					265					270		
Gly	Glu	Ile	Gln	Pro	Leu	Ser	Pro	Gln	Pro	Ser	Ala	Pro	Ile	Ala	Ser
		275						280				285			
Ser	Pro	Ala	Ile	Asp	Met	Pro	Pro	Gln	Ser	Glu	Thr	Ile	Ser	Ser	Pro
	290					295					300				
Met	Pro	Gln	Thr	His	Val	Ser	Gly	Thr	Pro	Pro	Pro	Val	Lys	Ala	Ser
305					310					315					320
Phe	Ser	Ser	Pro	Thr	Val	Ser	Ala	Pro	Ala	Asn	Val	Asn	Thr	Thr	Ser
				325					330					335	
Ala	Pro	Pro	Val	Gln	Thr	Asp	Ile	Val	Asn	Thr	Ser	Ser	Ile	Ser	Asp
			340					345					350		
Leu	Glu	Asn	Gln	Val	Leu	Gln	Met	Glu	Lys	Ala	Leu	Ser	Leu	Gly	Ser
		355					360					365			
Leu	Glu	Pro	Asn	Leu	Ala	Gly	Glu	Met	Ile	Asn	Gln	Val	Ser	Arg	Leu
	370					375					380				
Leu	His	Ser	Pro	Pro	Asp	Met	Leu	Ala	Pro	Leu	Ala	Gln	Arg	Leu	Leu
385					390					395					400
Lys	Val	Val	Asp	Asp	Ile	Gly	Leu	Gln	Leu	Asn	Phe	Ser	Asn	Thr	Thr
				405					410					415	

Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn
 420 425 430

Ala Ser Ser Phe Asn Thr Thr Thr Phe Val Ala Gln Asp Pro Ala Asn
 435 440 445

Leu Gln Val Ser Leu Glu Thr Gln Ala Pro Glu Asn Ser Ile Gly Thr
 450 455 460

Ile Thr Leu Pro Ser Ser Leu Met Asn Asn Leu Pro Ala His Asp Met
 465 470 475 480

Glu Leu Ala Ser Arg Val Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu
 485 490 495

Phe Gln Asp Pro Ser Leu Glu Asn Leu Ser Leu Ile Ser Tyr Val Ile
 500 505 510

Ser Ser Ser Val Ala Asn Leu Thr Val Arg Asn Leu Thr Arg Asn Val
 515 520 525

Thr Val Thr Leu Lys His Ile Asn Pro Ser Gln Asp Glu Leu Thr Val
 530 535 540

Arg Cys Val Phe Trp Asp Leu Gly Arg Asn Gly Gly Arg Gly Gly Trp
 545 550 555 560

Ser Asp Asn Gly Cys Ser Val Lys Asp Arg Arg Leu Asn Glu Thr Ile
 565 570 575

Cys Thr Cys Ser His Leu Thr Ser Phe Gly Val Leu Leu Asp Leu Ser
 580 585 590

Arg Thr Ser Val Leu Pro Ala Gln Met Met Ala Leu Thr Phe Ile Thr
 595 600 605

Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu Ser Val Thr Leu Val
 610 615 620

Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp Tyr Pro Ser Lys Ile
 625 630 635 640

Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu Asn Leu Val Phe Leu
 645 650 655

Leu Asp Ser Trp Ile Ala Leu Tyr Lys Met Gln Gly Leu Cys Ile Ser
 660 665 670

Val Ala Val Phe Leu His Tyr Phe Leu Leu Val Ser Phe Thr Trp Met
 675 680 685

Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu Val Lys Val Phe Asn
 690 695 700

Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile Val Gly Trp Gly
 705 710 715 720

Val Pro Ala Val Val Val Thr Ile Ile Leu Thr Ile Ser Pro Asp Asn
 725 730 735

Tyr Gly Leu Gly Ser Tyr Gly Lys Phe Pro Asn Gly Ser Pro Asp Asp
 740 745 750

Phe Cys Trp Ile Asn Asn Asn Ala Val Phe Tyr Ile Thr Val Val Gly
 755 760 765

Tyr Phe Cys Val Ile Phe Leu Leu Asn Val Ser Met Phe Ile Val Val
 770 775 780

Leu Val Gln Leu Cys Arg Ile Lys Lys Lys Lys Gln Leu Gly Ala Gln
 785 790 795 800

Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser Ile Ala Gly Leu Thr Phe
 805 810 815

Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Val
 820 825 830

Asn Val Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly
 835 840 845

Phe Phe Ile Phe Ile Phe Tyr Cys Val Ala Lys Glu Asn Val Arg Lys
 850 855 860

Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn

Val	Gly	Arg	Thr	Glu	Glu	Val	Leu	Leu	Thr	Phe	Lys	Ile	Phe	Leu	Val	65	70	75	80
Ile	Ile	Cys	Leu	His	Val	Val	Leu	Val	Thr	Ser	Leu	Glu	Glu	Asp	Thr	85	90	95	
Asp	Asn	Ser	Ser	Leu	Ser	Pro	Pro	Pro	Ala	Lys	Leu	Ser	Val	Val	Ser	100	105	110	
Phe	Ala	Pro	Ser	Ser	Asn	Gly	Thr	Pro	Glu	Val	Glu	Thr	Thr	Ser	Leu	115	120	125	
Asn	Asp	Val	Thr	Leu	Ser	Leu	Leu	Pro	Ser	Asn	Glu	Thr	Gly	Val	Lys	130	135	140	
Pro	Gln	Arg	Asn	Ile	Cys	Asn	Leu	Ser	Ser	Ile	Cys	Asn	Asp	Ser	Ala	145	150	155	160
Phe	Phe	Arg	Gly	Glu	Ile	Met	Phe	Gln	Tyr	Asp	Lys	Glu	Ser	Thr	Val	165	170	175	
Pro	Gln	Asn	Gln	His	Ile	Thr	Asn	Gly	Thr	Leu	Thr	Gly	Val	Leu	Ser	180	185	190	
Leu	Ser	Glu	Leu	Lys	Arg	Ser	Glu	Leu	Asn	Lys	Thr	Leu	Gln	Thr	Leu	195	200	205	
Ser	Glu	Thr	Tyr	Phe	Ile	Met	Cys	Ala	Thr	Ala	Glu	Ala	Gln	Ser	Thr	210	215	220	
Leu	Asn	Cys	Thr	Phe	Thr	Ile	Lys	Leu	Asn	Asn	Thr	Met	Asn	Ala	Cys	225	230	235	240
Ala	Ala	Ile	Ala	Ala	Leu	Glu	Arg	Val	Lys	Ile	Arg	Pro	Met	Glu	His	245	250	255	
Cys	Cys	Cys	Ser	Val	Arg	Ile	Pro	Cys	Pro	Ser	Ser	Pro	Glu	Glu	Leu	260	265	270	
Gly	Lys	Leu	Gln	Cys	Asp	Leu	Gln	Asp	Pro	Ile	Val	Cys	Leu	Ala	Asp	275	280	285	

His Pro Arg Gly Pro Pro Phe Ser Ser Ser Gln Ser Ile Pro Val Val
 290 295 300

Pro Arg Ala Thr Val Leu Ser Gln Val Pro Lys Ala Thr Ser Phe Ala
 305 310 315 320

Glu Pro Pro Asp Tyr Ser Pro Val Thr His Asn Val Pro Ser Pro Ile
 325 330 335

Gly Glu Ile Gln Pro Leu Ser Pro Gln Pro Ser Ala Pro Ile Ala Ser
 340 345 350

Ser Pro Ala Ile Asp Met Pro Pro Gln Ser Glu Thr Ile Ser Ser Pro
 355 360 365

Met Pro Gln Thr His Val Ser Gly Thr Pro Pro Pro Val Lys Ala Ser
 370 375 380

Phe Ser Ser Pro Thr Val Ser Ala Pro Ala Asn Val Asn Thr Thr Ser
 385 390 395 400

Ala Pro Pro Val Gln Thr Asp Ile Val Asn Thr Ser Ser Ile Ser Asp
 405 410 415

Leu Glu Asn Gln Val Leu Gln Met Glu Lys Ala Leu Ser Leu Gly Ser
 420 425 430

Leu Glu Pro Asn Leu Ala Gly Glu Met Ile Asn Gln Val Ser Arg Leu
 435 440 445

Leu His Ser Pro Pro Asp Met Leu Ala Pro Leu Ala Gln Arg Leu Leu
 450 455 460

Lys Val Val Asp Asp Ile Gly Leu Gln Leu Asn Phe Ser Asn Thr Thr
 465 470 475 480

Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn
 485 490 495

Ala Ser Ser Phe Asn Thr Thr Thr Phe Val Ala Gln Asp Pro Ala Asn
 500 505 510

Leu Gln Val Ser Leu Glu Thr Gln Ala Pro Glu Asn Ser Ile Gly Thr

515					520					525					
Ile	Thr	Leu	Pro	Ser	Ser	Leu	Met	Asn	Asn	Leu	Pro	Ala	His	Asp	Met
530						535					540				
Glu	Leu	Ala	Ser	Arg	Val	Gln	Phe	Asn	Phe	Phe	Glu	Thr	Pro	Ala	Leu
545					550					555					560
Phe	Gln	Asp	Pro	Ser	Leu	Glu	Asn	Leu	Ser	Leu	Ile	Ser	Tyr	Val	Ile
				565					570					575	
Ser	Ser	Ser	Val	Ala	Asn	Leu	Thr	Val	Arg	Asn	Leu	Thr	Arg	Asn	Val
			580					585					590		
Thr	Val	Thr	Leu	Lys	His	Ile	Asn	Pro	Ser	Gln	Asp	Glu	Leu	Thr	Val
		595					600					605			
Arg	Cys	Val	Phe	Trp	Asp	Leu	Gly	Arg	Asn	Gly	Gly	Arg	Gly	Gly	Trp
	610					615					620				
Ser	Asp	Asn	Gly	Cys	Ser	Val	Lys	Asp	Arg	Arg	Leu	Asn	Glu	Thr	Ile
625					630					635					640
Cys	Thr	Cys	Ser	His	Leu	Thr	Ser	Phe	Gly	Val	Leu	Leu	Asp	Leu	Ser
				645					650					655	
Arg	Thr	Ser	Val	Leu	Pro	Ala	Gln	Met	Met	Ala	Leu	Thr	Phe	Ile	Thr
			660					665					670		
Tyr	Ile	Gly	Cys	Gly	Leu	Ser	Ser	Ile	Phe	Leu	Ser	Val	Thr	Leu	Val
		675					680					685			
Thr	Tyr	Ile	Ala	Phe	Glu	Lys	Ile	Arg	Arg	Asp	Tyr	Pro	Ser	Lys	Ile
	690					695					700				
Leu	Ile	Gln	Leu	Cys	Ala	Ala	Leu	Leu	Leu	Leu	Asn	Leu	Val	Phe	Leu
705					710					715					720
Leu	Asp	Ser	Trp	Ile	Ala	Leu	Tyr	Lys	Met	Gln	Gly	Leu	Cys	Ile	Ser
				725					730					735	
Val	Ala	Val	Phe	Leu	His	Tyr	Phe	Leu	Leu	Val	Ser	Phe	Thr	Trp	Met
			740					745					750		

Gly	Leu	Glu	Ala	Phe	His	Met	Tyr	Leu	Ala	Leu	Val	Lys	Val	Phe	Asn
	755						760					765			
Thr	Tyr	Ile	Arg	Lys	Tyr	Ile	Leu	Lys	Phe	Cys	Ile	Val	Gly	Trp	Gly
	770					775					780				
Val	Pro	Ala	Val	Val	Val	Thr	Ile	Ile	Leu	Thr	Ile	Ser	Pro	Asp	Asn
785					790					795					800
Tyr	Gly	Leu	Gly	Ser	Tyr	Gly	Lys	Phe	Pro	Asn	Gly	Ser	Pro	Asp	Asp
				805					810					815	
Phe	Cys	Trp	Ile	Asn	Asn	Asn	Ala	Val	Phe	Tyr	Ile	Thr	Val	Val	Gly
			820					825					830		
Tyr	Phe	Cys	Val	Ile	Phe	Leu	Leu	Asn	Val	Ser	Met	Phe	Ile	Val	Val
		835					840					845			
Leu	Val	Gln	Leu	Cys	Arg	Ile	Lys	Lys	Lys	Lys	Gln	Leu	Gly	Ala	Gln
	850					855					860				
Arg	Lys	Thr	Ser	Ile	Gln	Asp	Leu	Arg	Ser	Ile	Ala	Gly	Leu	Thr	Phe
865					870					875					880
Leu	Leu	Gly	Ile	Thr	Trp	Gly	Phe	Ala	Phe	Phe	Ala	Trp	Gly	Pro	Val
				885					890					895	
Asn	Val	Thr	Phe	Met	Tyr	Leu	Phe	Ala	Ile	Phe	Asn	Thr	Leu	Gln	Gly
			900					905					910		
Phe	Phe	Ile	Phe	Ile	Phe	Tyr	Cys	Val	Ala	Lys	Glu	Asn	Val	Arg	Lys
		915					920					925			
Gln	Trp	Arg	Arg	Tyr	Leu	Cys	Cys	Gly	Lys	Leu	Arg	Leu	Ala	Glu	Asn
	930					935					940				
Ser	Asp	Trp	Ser	Lys	Thr	Ala	Thr	Asn	Gly	Leu	Lys	Lys	Gln	Thr	Val
945					950					955					960
Asn	Gln	Gly	Val	Ser	Ser	Ser	Ser	Asn	Ser	Leu	Gln	Ser	Ser	Ser	Asn
				965					970					975	

Ser Thr Asn Ser Thr Thr Leu Leu Val Asn Asn Asp Cys Ser Val His
 980 985 990

Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe
 995 1000 1005

Ser Val Gln Asn Gly Asp Val Cys Leu His Asp Phe Thr Gly Lys
 1010 1015 1020

Gln His Met Phe Asn Glu Lys Glu Asp Ser Cys Asn Gly Lys Gly
 1025 1030 1035

Arg Met Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His Phe
 1040 1045 1050

Ile Glu Gln Met
 1055

<210> 41
 <211> 1003
 <212> PRT
 <213> Homo sapiens

<400> 41

Met Val Phe Ser Val Arg Gln Cys Gly His Val Gly Arg Thr Glu Glu
 1 5 10 15

Val Leu Leu Thr Phe Lys Ile Phe Leu Val Ile Ile Cys Leu His Val
 20 25 30

Val Leu Val Thr Ser Leu Glu Glu Asp Thr Asp Asn Ser Ser Leu Ser
 35 40 45

Pro Pro Pro Ala Lys Leu Ser Val Val Ser Phe Ala Pro Ser Ser Asn
 50 55 60

Gly Thr Pro Glu Val Glu Thr Thr Ser Leu Asn Asp Val Thr Leu Ser
 65 70 75 80

Leu Leu Pro Ser Asn Glu Thr Gly Val Lys Pro Gln Arg Asn Ile Cys
 85 90 95

Asn Leu Ser Ser Ile Cys Asn Asp Ser Ala Phe Phe Arg Gly Glu Ile

100	105	110
Met Phe Gln Tyr Asp Lys Glu Ser Thr Val Pro Gln Asn Gln His Ile		
115	120	125
Thr Asn Gly Thr Leu Thr Gly Val Leu Ser Leu Ser Glu Leu Lys Arg		
130	135	140
Ser Glu Leu Asn Lys Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile		
145	150	155
Met Cys Ala Thr Ala Glu Ala Gln Ser Thr Leu Asn Cys Thr Phe Thr		
165	170	175
Ile Lys Leu Asn Asn Thr Met Asn Ala Cys Ala Ala Ile Ala Ala Leu		
180	185	190
Glu Arg Val Lys Ile Arg Pro Met Glu His Cys Cys Cys Ser Val Arg		
195	200	205
Ile Pro Cys Pro Ser Ser Pro Glu Glu Leu Gly Lys Leu Gln Cys Asp		
210	215	220
Leu Gln Asp Pro Ile Val Cys Leu Ala Asp His Pro Arg Gly Pro Pro		
225	230	235
Phe Ser Ser Ser Gln Ser Ile Pro Val Val Pro Arg Ala Thr Val Leu		
245	250	255
Ser Gln Val Pro Lys Ala Thr Ser Phe Ala Glu Pro Pro Asp Tyr Ser		
260	265	270
Pro Val Thr His Asn Val Pro Ser Pro Ile Gly Glu Ile Gln Pro Leu		
275	280	285
Ser Pro Gln Pro Ser Ala Pro Ile Ala Ser Ser Pro Ala Ile Asp Met		
290	295	300
Pro Pro Gln Ser Glu Thr Ile Ser Ser Pro Met Pro Gln Thr His Val		
305	310	315
Ser Gly Thr Pro Pro Pro Val Lys Ala Ser Phe Ser Ser Pro Thr Val		
325	330	335

Ser Ala Pro Ala Asn Val Asn Thr Thr Ser Ala Pro Pro Val Gln Thr
 340 345 350

Asp Ile Val Asn Thr Ser Ser Ile Ser Asp Leu Glu Asn Gln Val Leu
 355 360 365

Gln Met Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala
 370 375 380

Gly Glu Met Ile Asn Gln Val Ser Arg Leu Leu His Ser Pro Pro Asp
 385 390 395 400

Met Leu Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Asp Ile
 405 410 415

Gly Leu Gln Leu Asn Phe Ser Asn Thr Thr Ile Ser Leu Thr Ser Pro
 420 425 430

Ser Leu Ala Leu Ala Val Ile Arg Val Asn Ala Ser Ser Phe Asn Thr
 435 440 445

Thr Thr Phe Val Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu Glu
 450 455 460

Thr Gln Ala Pro Glu Asn Ser Ile Gly Thr Ile Thr Leu Pro Ser Ser
 465 470 475 480

Leu Met Asn Asn Leu Pro Ala His Asp Met Glu Leu Ala Ser Arg Val
 485 490 495

Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu
 500 505 510

Glu Asn Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Ala Asn
 515 520 525

Leu Thr Val Arg Asn Leu Thr Arg Asn Val Thr Val Thr Leu Lys His
 530 535 540

Ile Asn Pro Ser Gln Asp Glu Leu Thr Val Arg Cys Val Phe Trp Asp
 545 550 555 560

Leu Gly Arg Asn Gly Gly Arg Gly Gly Trp Ser Asp Asn Gly Cys Ser
 565 570 575

Val Lys Asp Arg Arg Leu Asn Glu Thr Ile Cys Thr Cys Ser His Leu
 580 585 590

Thr Ser Phe Gly Val Leu Leu Asp Leu Ser Arg Thr Ser Val Leu Pro
 595 600 605

Ala Gln Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu
 610 615 620

Ser Ser Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu
 625 630 635 640

Lys Ile Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala
 645 650 655

Ala Leu Leu Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala
 660 665 670

Leu Tyr Lys Met Gln Gly Leu Cys Ile Ser Val Ala Val Phe Leu His
 675 680 685

Tyr Phe Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His
 690 695 700

Met Tyr Leu Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr
 705 710 715 720

Ile Leu Lys Phe Cys Ile Val Gly Trp Gly Val Pro Ala Val Val Val
 725 730 735

Thr Ile Ile Leu Thr Ile Ser Pro Asp Asn Tyr Gly Leu Gly Ser Tyr
 740 745 750

Gly Lys Phe Pro Asn Gly Ser Pro Asp Asp Phe Cys Trp Ile Asn Asn
 755 760 765

Asn Ala Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe
 770 775 780

Leu Leu Asn Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg
785 790 795 800

Ile Lys Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln
805 810 815

Asp Leu Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp
820 825 830

Gly Phe Ala Phe Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr
835 840 845

Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe
850 855 860

Tyr Cys Val Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu
865 870 875 880

Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr
885 890 895

Ala Thr Asn Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser
900 905 910

Ser Ser Asn Ser Leu Gln Ser Ser Ser Asn Ser Thr Asn Ser Thr Thr
915 920 925

Leu Leu Val Asn Asn Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn
930 935 940

Ala Ser Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp
945 950 955 960

Val Cys Leu His Asp Phe Thr Gly Lys Gln His Met Phe Asn Glu Lys
965 970 975

Glu Asp Ser Cys Asn Gly Lys Gly Arg Met Ala Leu Arg Arg Thr Ser
980 985 990

Lys Arg Gly Ser Leu His Phe Ile Glu Gln Met
995 1000

<210> 42

<211> 1055
 <212> PRT
 <213> Homo sapiens

<400> 42

Gly Ser Gly Gly Gly Gly Ala Glu Ala Ala Gly Gly Gly Arg Arg Ala
 1 5 10 15

Ala Ala Pro Glu Arg Gly Lys Gly Gly Pro Asp Gly Ala Ser Ser Gln
 20 25 30

Pro Glu Asp Ala Ser Gly Arg Cys Ala Gln Arg Phe Ser Thr Leu Phe
 35 40 45

Ser Glu Leu Ala Val Arg Met Val Phe Ser Val Arg Gln Cys Gly His
 50 55 60

Val Gly Arg Thr Glu Glu Val Leu Leu Thr Phe Lys Ile Phe Leu Val
 65 70 75 80

Ile Ile Cys Leu His Val Val Leu Val Thr Ser Leu Glu Glu Asp Thr
 85 90 95

Asp Asn Ser Ser Leu Ser Pro Pro Pro Glu Val Glu Thr Thr Ser Leu
 100 105 110

Asn Asp Val Thr Leu Ser Leu Leu Pro Ser Asn Glu Thr Glu Lys Thr
 115 120 125

Lys Ile Thr Ile Val Lys Thr Phe Asn Ala Ser Gly Val Lys Pro Gln
 130 135 140

Arg Asn Ile Cys Asn Leu Ser Ser Ile Cys Asn Asp Ser Ala Phe Phe
 145 150 155 160

Arg Gly Glu Ile Met Phe Gln Tyr Asp Lys Glu Ser Thr Val Pro Gln
 165 170 175

Asn Gln His Ile Thr Asn Gly Thr Leu Thr Gly Val Leu Ser Leu Ser
 180 185 190

Glu Leu Lys Arg Ser Glu Leu Asn Lys Thr Leu Gln Thr Leu Ser Glu
 195 200 205

Thr 210	Tyr	Phe	Ile	Met	Cys	Ala 215	Thr	Ala	Glu	Ala	Gln 220	Ser	Thr	Leu	Asn
Cys 225	Thr	Phe	Thr	Ile	Lys 230	Leu	Asn	Asn	Thr	Met 235	Asn	Ala	Cys	Ala 240	
Ile	Ala	Ala	Leu	Glu 245	Arg	Val	Lys	Ile	Arg 250	Pro	Met	Glu	His	Cys 255	Cys
Cys	Ser	Val	Arg 260	Ile	Pro	Cys	Pro	Ser 265	Ser	Pro	Glu	Glu	Leu 270	Gly	Lys
Leu	Gln	Cys 275	Asp	Leu	Gln	Asp	Pro 280	Ile	Val	Cys	Leu	Ala 285	Asp	His	Pro
Arg	Gly 290	Pro	Pro	Phe	Ser	Ser 295	Ser	Gln	Ser	Ile	Pro 300	Val	Val	Pro	Arg
Ala 305	Thr	Val	Leu	Ser	Gln 310	Val	Pro	Lys	Ala	Thr 315	Ser	Phe	Ala	Glu	Pro 320
Pro	Asp	Tyr	Ser	Pro 325	Val	Thr	His	Asn	Val 330	Pro	Ser	Pro	Ile	Gly 335	Glu
Ile	Gln	Pro	Leu 340	Ser	Pro	Gln	Pro	Ser 345	Ala	Pro	Ile	Ala	Ser 350	Ser	Pro
Ala	Ile	Asp 355	Met	Pro	Pro	Gln	Ser 360	Glu	Thr	Ile	Ser	Ser 365	Pro	Met	Pro
Gln	Thr 370	His	Val	Ser	Gly	Thr 375	Pro	Pro	Pro	Val	Lys 380	Ala	Ser	Phe	Ser
Ser 385	Pro	Thr	Val	Ser	Ala 390	Pro	Ala	Asn	Val	Asn 395	Thr	Thr	Ser	Ala	Pro 400
Pro	Val	Gln	Thr	Asp 405	Ile	Val	Asn	Thr	Ser 410	Ser	Ile	Ser	Asp	Leu 415	Glu
Asn	Gln	Val	Leu 420	Gln	Met	Glu	Lys 425	Ala	Leu	Ser	Leu	Gly	Ser 430	Leu	Glu

Pro Asn Leu Ala Gly Glu Met Ile Asn Gln Val Ser Arg Leu Leu His
 435 440 445

Ser Pro Pro Asp Met Leu Ala Pro Leu Ala Gln Arg Leu Leu Lys Val
 450 455 460

Val Asp Asp Ile Gly Leu Gln Leu Asn Phe Ser Asn Thr Thr Ile Ser
 465 470 475 480

Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn Ala Ser
 485 490 495

Ser Phe Asn Thr Thr Thr Phe Val Ala Gln Asp Pro Ala Asn Leu Gln
 500 505 510

Val Ser Leu Glu Thr Gln Ala Pro Glu Asn Ser Ile Gly Thr Ile Thr
 515 520 525

Leu Pro Ser Ser Leu Met Asn Asn Leu Pro Ala His Asp Met Glu Leu
 530 535 540

Ala Ser Arg Val Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln
 545 550 555 560

Asp Pro Ser Leu Glu Asn Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser
 565 570 575

Ser Val Ala Asn Leu Thr Val Arg Asn Leu Thr Arg Asn Val Thr Val
 580 585 590

Thr Leu Lys His Ile Asn Pro Ser Gln Asp Glu Leu Thr Val Arg Cys
 595 600 605

Val Phe Trp Asp Leu Gly Arg Asn Gly Gly Arg Gly Gly Trp Ser Asp
 610 615 620

Asn Gly Cys Ser Val Lys Asp Arg Arg Leu Asn Glu Thr Ile Cys Thr
 625 630 635 640

Cys Ser His Leu Thr Ser Phe Gly Val Leu Leu Asp Leu Ser Arg Thr
 645 650 655

Ser Val Leu Pro Ala Gln Met Met Ala Leu Thr Phe Ile Thr Tyr Ile

660					665					670					
Gly	Cys	Gly	Leu	Ser	Ser	Ile	Phe	Leu	Ser	Val	Thr	Leu	Val	Thr	Tyr
		675					680					685			
Ile	Ala	Phe	Glu	Lys	Ile	Arg	Arg	Asp	Tyr	Pro	Ser	Lys	Ile	Leu	Ile
	690					695					700				
Gln	Leu	Cys	Ala	Ala	Leu	Leu	Leu	Leu	Asn	Leu	Val	Phe	Leu	Leu	Asp
705					710				715						720
Ser	Trp	Ile	Ala	Leu	Tyr	Lys	Met	Gln	Gly	Leu	Cys	Ile	Ser	Val	Ala
				725					730					735	
Val	Phe	Leu	His	Tyr	Phe	Leu	Leu	Val	Ser	Phe	Thr	Trp	Met	Gly	Leu
			740					745					750		
Glu	Ala	Phe	His	Met	Tyr	Leu	Ala	Leu	Val	Lys	Val	Phe	Asn	Thr	Tyr
		755					760					765			
Ile	Arg	Lys	Tyr	Ile	Leu	Lys	Phe	Cys	Ile	Val	Gly	Trp	Gly	Val	Pro
	770					775					780				
Ala	Val	Val	Val	Thr	Ile	Ile	Leu	Thr	Ile	Ser	Pro	Asp	Asn	Tyr	Gly
785					790					795					800
Leu	Gly	Ser	Tyr	Gly	Lys	Phe	Pro	Asn	Gly	Ser	Pro	Asp	Asp	Phe	Cys
				805					810					815	
Trp	Ile	Asn	Asn	Asn	Ala	Val	Phe	Tyr	Ile	Thr	Val	Val	Gly	Tyr	Phe
			820					825					830		
Cys	Val	Ile	Phe	Leu	Leu	Asn	Val	Ser	Met	Phe	Ile	Val	Val	Leu	Val
		835					840					845			
Gln	Leu	Cys	Arg	Ile	Lys	Lys	Lys	Lys	Gln	Leu	Gly	Ala	Gln	Arg	Lys
	850					855					860				
Thr	Ser	Ile	Gln	Asp	Leu	Arg	Ser	Ile	Ala	Gly	Leu	Thr	Phe	Leu	Leu
865					870					875					880
Gly	Ile	Thr	Trp	Gly	Phe	Ala	Phe	Phe	Ala	Trp	Gly	Pro	Val	Asn	Val
				885					890					895	

Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe
 900 905 910

Ile Phe Ile Phe Tyr Cys Val Ala Lys Glu Asn Val Arg Lys Gln Trp
 915 920 925

Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp
 930 935 940

Trp Ser Lys Thr Ala Thr Asn Gly Leu Lys Lys Gln Thr Val Asn Gln
 945 950 955 960

Gly Val Ser Ser Ser Ser Asn Ser Leu Gln Ser Ser Ser Asn Ser Thr
 965 970 975

Asn Ser Thr Thr Leu Leu Val Asn Asn Asp Cys Ser Val His Ala Ser
 980 985 990

Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe Ser Val
 995 1000 1005

Gln Asn Gly Asp Val Cys Leu His Asp Phe Thr Gly Lys Gln His
 1010 1015 1020

Met Phe Asn Glu Lys Glu Asp Ser Cys Asn Gly Lys Gly Arg Met
 1025 1030 1035

Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His Phe Ile Glu
 1040 1045 1050

Gln Met
 1055

<210> 43
 <211> 1001
 <212> PRT
 <213> Homo sapiens

<400> 43

Met Val Phe Ser Val Arg Gln Cys Gly His Val Gly Arg Thr Glu Glu
 1 5 10 15

Val Leu Leu Thr Phe Lys Ile Phe Leu Val Ile Ile Cys Leu His Val
20 25 30

Val Leu Val Thr Ser Leu Glu Glu Asp Thr Asp Asn Ser Ser Leu Ser
35 40 45

Pro Pro Pro Glu Val Glu Thr Thr Ser Leu Asn Asp Val Thr Leu Ser
50 55 60

Leu Leu Pro Ser Asn Glu Thr Glu Lys Thr Lys Ile Thr Ile Val Lys
65 70 75 80

Thr Phe Asn Ala Ser Gly Val Lys Pro Gln Arg Asn Ile Cys Asn Leu
85 90 95

Ser Ser Ile Cys Asn Asp Ser Ala Phe Phe Arg Gly Glu Ile Met Phe
100 105 110

Gln Tyr Asp Lys Glu Ser Thr Val Pro Gln Asn Gln His Ile Thr Asn
115 120 125

Gly Thr Leu Thr Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Ser Glu
130 135 140

Leu Asn Lys Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Met Cys
145 150 155 160

Ala Thr Ala Glu Ala Gln Ser Thr Leu Asn Cys Thr Phe Thr Ile Lys
165 170 175

Leu Asn Asn Thr Met Asn Ala Cys Ala Ala Ile Ala Ala Leu Glu Arg
180 185 190

Val Lys Ile Arg Pro Met Glu His Cys Cys Cys Ser Val Arg Ile Pro
195 200 205

Cys Pro Ser Ser Pro Glu Glu Leu Gly Lys Leu Gln Cys Asp Leu Gln
210 215 220

Asp Pro Ile Val Cys Leu Ala Asp His Pro Arg Gly Pro Pro Phe Ser
225 230 235 240

Ser Ser Gln Ser Ile Pro Val Val Pro Arg Ala Thr Val Leu Ser Gln

				245						250						255
Val	Pro	Lys	Ala	Thr	Ser	Phe	Ala	Glu	Pro	Pro	Asp	Tyr	Ser	Pro	Val	
			260					265					270			
Thr	His	Asn	Val	Pro	Ser	Pro	Ile	Gly	Glu	Ile	Gln	Pro	Leu	Ser	Pro	
		275					280					285				
Gln	Pro	Ser	Ala	Pro	Ile	Ala	Ser	Ser	Pro	Ala	Ile	Asp	Met	Pro	Pro	
	290					295					300					
Gln	Ser	Glu	Thr	Ile	Ser	Ser	Pro	Met	Pro	Gln	Thr	His	Val	Ser	Gly	
305					310					315					320	
Thr	Pro	Pro	Pro	Val	Lys	Ala	Ser	Phe	Ser	Ser	Pro	Thr	Val	Ser	Ala	
				325					330					335		
Pro	Ala	Asn	Val	Asn	Thr	Thr	Ser	Ala	Pro	Pro	Val	Gln	Thr	Asp	Ile	
			340					345					350			
Val	Asn	Thr	Ser	Ser	Ile	Ser	Asp	Leu	Glu	Asn	Gln	Val	Leu	Gln	Met	
		355					360					365				
Glu	Lys	Ala	Leu	Ser	Leu	Gly	Ser	Leu	Glu	Pro	Asn	Leu	Ala	Gly	Glu	
	370					375					380					
Met	Ile	Asn	Gln	Val	Ser	Arg	Leu	Leu	His	Ser	Pro	Pro	Asp	Met	Leu	
385					390					395					400	
Ala	Pro	Leu	Ala	Gln	Arg	Leu	Leu	Lys	Val	Val	Asp	Asp	Ile	Gly	Leu	
				405					410					415		
Gln	Leu	Asn	Phe	Ser	Asn	Thr	Thr	Ile	Ser	Leu	Thr	Ser	Pro	Ser	Leu	
			420					425					430			
Ala	Leu	Ala	Val	Ile	Arg	Val	Asn	Ala	Ser	Ser	Phe	Asn	Thr	Thr	Thr	
		435					440					445				
Phe	Val	Ala	Gln	Asp	Pro	Ala	Asn	Leu	Gln	Val	Ser	Leu	Glu	Thr	Gln	
	450					455					460					
Ala	Pro	Glu	Asn	Ser	Ile	Gly	Thr	Ile	Thr	Leu	Pro	Ser	Ser	Leu	Met	
465					470					475					480	

Asn Asn Leu Pro Ala His Asp Met Glu Leu Ala Ser Arg Val Gln Phe
 485 490 495

Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn
 500 505 510

Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Ala Asn Leu Thr
 515 520 525

Val Arg Asn Leu Thr Arg Asn Val Thr Val Thr Leu Lys His Ile Asn
 530 535 540

Pro Ser Gln Asp Glu Leu Thr Val Arg Cys Val Phe Trp Asp Leu Gly
 545 550 555 560

Arg Asn Gly Gly Arg Gly Gly Trp Ser Asp Asn Gly Cys Ser Val Lys
 565 570 575

Asp Arg Arg Leu Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser
 580 585 590

Phe Gly Val Leu Leu Asp Leu Ser Arg Thr Ser Val Leu Pro Ala Gln
 595 600 605

Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser
 610 615 620

Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile
 625 630 635 640

Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu
 645 650 655

Leu Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr
 660 665 670

Lys Met Gln Gly Leu Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe
 675 680 685

Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr
 690 695 700

Leu Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu
 705 710 715 720

Lys Phe Cys Ile Val Gly Trp Gly Val Pro Ala Val Val Val Thr Ile
 725 730 735

Ile Leu Thr Ile Ser Pro Asp Asn Tyr Gly Leu Gly Ser Tyr Gly Lys
 740 745 750

Phe Pro Asn Gly Ser Pro Asp Asp Phe Cys Trp Ile Asn Asn Asn Ala
 755 760 765

Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu
 770 775 780

Asn Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys
 785 790 795 800

Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu
 805 810 815

Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe
 820 825 830

Ala Phe Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe
 835 840 845

Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys
 850 855 860

Val Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys
 865 870 875 880

Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr
 885 890 895

Asn Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser
 900 905 910

Asn Ser Leu Gln Ser Ser Ser Asn Ser Thr Asn Ser Thr Thr Leu Leu
 915 920 925

Val Asn Asn Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser
 930 935 940

Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys
 945 950 955 960

Leu His Asp Phe Thr Gly Lys Gln His Met Phe Asn Glu Lys Glu Asp
 965 970 975

Ser Cys Asn Gly Lys Gly Arg Met Ala Leu Arg Arg Thr Ser Lys Arg
 980 985 990

Gly Ser Leu His Phe Ile Glu Gln Met
 995 1000

<210> 44
 <211> 1041
 <212> PRT
 <213> Homo sapiens

<400> 44

Gly Ser Gly Gly Gly Gly Ala Glu Ala Ala Gly Gly Gly Arg Arg Ala
 1 5 10 15

Ala Ala Pro Glu Arg Gly Lys Gly Gly Pro Asp Gly Ala Ser Ser Gln
 20 25 30

Pro Glu Asp Ala Ser Gly Arg Cys Ala Gln Arg Phe Ser Thr Leu Phe
 35 40 45

Ser Glu Leu Ala Val Arg Met Val Phe Ser Val Arg Gln Cys Gly His
 50 55 60

Val Gly Arg Thr Glu Glu Val Leu Leu Thr Phe Lys Ile Phe Leu Val
 65 70 75 80

Ile Ile Cys Leu His Val Val Leu Val Thr Ser Leu Glu Glu Asp Thr
 85 90 95

Asp Asn Ser Ser Leu Ser Pro Pro Pro Glu Val Glu Thr Thr Ser Leu
 100 105 110

Asn Asp Val Thr Leu Ser Leu Leu Pro Ser Asn Glu Thr Gly Val Lys
 115 120 125

Pro Gln Arg Asn Ile Cys Asn Leu Ser Ser Ile Cys Asn Asp Ser Ala
 130 135 140

Phe Phe Arg Gly Glu Ile Met Phe Gln Tyr Asp Lys Glu Ser Thr Val
 145 150 155 160

Pro Gln Asn Gln His Ile Thr Asn Gly Thr Leu Thr Gly Val Leu Ser
 165 170 175

Leu Ser Glu Leu Lys Arg Ser Glu Leu Asn Lys Thr Leu Gln Thr Leu
 180 185 190

Ser Glu Thr Tyr Phe Ile Met Cys Ala Thr Ala Glu Ala Gln Ser Thr
 195 200 205

Leu Asn Cys Thr Phe Thr Ile Lys Leu Asn Asn Thr Met Asn Ala Cys
 210 215 220

Ala Ala Ile Ala Ala Leu Glu Arg Val Lys Ile Arg Pro Met Glu His
 225 230 235 240

Cys Cys Cys Ser Val Arg Ile Pro Cys Pro Ser Ser Pro Glu Glu Leu
 245 250 255

Gly Lys Leu Gln Cys Asp Leu Gln Asp Pro Ile Val Cys Leu Ala Asp
 260 265 270

His Pro Arg Gly Pro Pro Phe Ser Ser Ser Gln Ser Ile Pro Val Val
 275 280 285

Pro Arg Ala Thr Val Leu Ser Gln Val Pro Lys Ala Thr Ser Phe Ala
 290 295 300

Glu Pro Pro Asp Tyr Ser Pro Val Thr His Asn Val Pro Ser Pro Ile
 305 310 315 320

Gly Glu Ile Gln Pro Leu Ser Pro Gln Pro Ser Ala Pro Ile Ala Ser
 325 330 335

Ser Pro Ala Ile Asp Met Pro Pro Gln Ser Glu Thr Ile Ser Ser Pro
 340 345 350

Met Pro Gln Thr His Val Ser Gly Thr Pro Pro Pro Val Lys Ala Ser
 355 360 365

Phe Ser Ser Pro Thr Val Ser Ala Pro Ala Asn Val Asn Thr Thr Ser
 370 375 380

Ala Pro Pro Val Gln Thr Asp Ile Val Asn Thr Ser Ser Ile Ser Asp
 385 390 395 400

Leu Glu Asn Gln Val Leu Gln Met Glu Lys Ala Leu Ser Leu Gly Ser
 405 410 415

Leu Glu Pro Asn Leu Ala Gly Glu Met Ile Asn Gln Val Ser Arg Leu
 420 425 430

Leu His Ser Pro Pro Asp Met Leu Ala Pro Leu Ala Gln Arg Leu Leu
 435 440 445

Lys Val Val Asp Asp Ile Gly Leu Gln Leu Asn Phe Ser Asn Thr Thr
 450 455 460

Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn
 465 470 475 480

Ala Ser Ser Phe Asn Thr Thr Thr Phe Val Ala Gln Asp Pro Ala Asn
 485 490 495

Leu Gln Val Ser Leu Glu Thr Gln Ala Pro Glu Asn Ser Ile Gly Thr
 500 505 510

Ile Thr Leu Pro Ser Ser Leu Met Asn Asn Leu Pro Ala His Asp Met
 515 520 525

Glu Leu Ala Ser Arg Val Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu
 530 535 540

Phe Gln Asp Pro Ser Leu Glu Asn Leu Ser Leu Ile Ser Tyr Val Ile
 545 550 555 560

Ser Ser Ser Val Ala Asn Leu Thr Val Arg Asn Leu Thr Arg Asn Val
 565 570 575

Thr Val Thr Leu Lys His Ile Asn Pro Ser Gln Asp Glu Leu Thr Val
 580 585 590

Arg Cys Val Phe Trp Asp Leu Gly Arg Asn Gly Gly Arg Gly Gly Trp
 595 600 605

Ser Asp Asn Gly Cys Ser Val Lys Asp Arg Arg Leu Asn Glu Thr Ile
 610 615 620

Cys Thr Cys Ser His Leu Thr Ser Phe Gly Val Leu Leu Asp Leu Ser
 625 630 635 640

Arg Thr Ser Val Leu Pro Ala Gln Met Met Ala Leu Thr Phe Ile Thr
 645 650 655

Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu Ser Val Thr Leu Val
 660 665 670

Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp Tyr Pro Ser Lys Ile
 675 680 685

Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu Asn Leu Val Phe Leu
 690 695 700

Leu Asp Ser Trp Ile Ala Leu Tyr Lys Met Gln Gly Leu Cys Ile Ser
 705 710 715 720

Val Ala Val Phe Leu His Tyr Phe Leu Leu Val Ser Phe Thr Trp Met
 725 730 735

Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu Val Lys Val Phe Asn
 740 745 750

Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile Val Gly Trp Gly
 755 760 765

Val Pro Ala Val Val Val Thr Ile Ile Leu Thr Ile Ser Pro Asp Asn
 770 775 780

Tyr Gly Leu Gly Ser Tyr Gly Lys Phe Pro Asn Gly Ser Pro Asp Asp
 785 790 795 800

Phe Cys Trp Ile Asn Asn Asn Ala Val Phe Tyr Ile Thr Val Val Gly

805	810	815
Tyr Phe Cys Val Ile Phe Leu Leu Asn Val Ser Met Phe Ile Val Val		
820	825	830
Leu Val Gln Leu Cys Arg Ile Lys Lys Lys Lys Gln Leu Gly Ala Gln		
835	840	845
Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser Ile Ala Gly Leu Thr Phe		
850	855	860
Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Val		
865	870	875
Asn Val Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly		
885	890	895
Phe Phe Ile Phe Ile Phe Tyr Cys Val Ala Lys Glu Asn Val Arg Lys		
900	905	910
Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn		
915	920	925
Ser Asp Trp Ser Lys Thr Ala Thr Asn Gly Leu Lys Lys Gln Thr Val		
930	935	940
Asn Gln Gly Val Ser Ser Ser Ser Asn Ser Leu Gln Ser Ser Ser Asn		
945	950	955
Ser Thr Asn Ser Thr Thr Leu Leu Val Asn Asn Asp Cys Ser Val His		
965	970	975
Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe		
980	985	990
Ser Val Gln Asn Gly Asp Val Cys Leu His Asp Phe Thr Gly Lys Gln		
995	1000	1005
His Met Phe Asn Glu Lys Glu Asp Ser Cys Asn Gly Lys Gly Arg		
1010	1015	1020
Met Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His Phe Ile		
1025	1030	1035

Glu Gln Met
1040

<210> 45
<211> 987
<212> PRT
<213> Homo sapiens

<400> 45

Met Val Phe Ser Val Arg Gln Cys Gly His Val Gly Arg Thr Glu Glu
1 5 10 15

Val Leu Leu Thr Phe Lys Ile Phe Leu Val Ile Ile Cys Leu His Val
20 25 30

Val Leu Val Thr Ser Leu Glu Glu Asp Thr Asp Asn Ser Ser Leu Ser
35 40 45

Pro Pro Pro Glu Val Glu Thr Thr Ser Leu Asn Asp Val Thr Leu Ser
50 55 60

Leu Leu Pro Ser Asn Glu Thr Gly Val Lys Pro Gln Arg Asn Ile Cys
65 70 75 80

Asn Leu Ser Ser Ile Cys Asn Asp Ser Ala Phe Phe Arg Gly Glu Ile
85 90 95

Met Phe Gln Tyr Asp Lys Glu Ser Thr Val Pro Gln Asn Gln His Ile
100 105 110

Thr Asn Gly Thr Leu Thr Gly Val Leu Ser Leu Ser Glu Leu Lys Arg
115 120 125

Ser Glu Leu Asn Lys Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile
130 135 140

Met Cys Ala Thr Ala Glu Ala Gln Ser Thr Leu Asn Cys Thr Phe Thr
145 150 155 160

Ile Lys Leu Asn Asn Thr Met Asn Ala Cys Ala Ala Ile Ala Ala Leu
165 170 175

Glu Arg Val Lys Ile Arg Pro Met Glu His Cys Cys Cys Ser Val Arg
 180 185 190

Ile Pro Cys Pro Ser Ser Pro Glu Glu Leu Gly Lys Leu Gln Cys Asp
 195 200 205

Leu Gln Asp Pro Ile Val Cys Leu Ala Asp His Pro Arg Gly Pro Pro
 210 215 220

Phe Ser Ser Ser Gln Ser Ile Pro Val Val Pro Arg Ala Thr Val Leu
 225 230 235 240

Ser Gln Val Pro Lys Ala Thr Ser Phe Ala Glu Pro Pro Asp Tyr Ser
 245 250 255

Pro Val Thr His Asn Val Pro Ser Pro Ile Gly Glu Ile Gln Pro Leu
 260 265 270

Ser Pro Gln Pro Ser Ala Pro Ile Ala Ser Ser Pro Ala Ile Asp Met
 275 280 285

Pro Pro Gln Ser Glu Thr Ile Ser Ser Pro Met Pro Gln Thr His Val
 290 295 300

Ser Gly Thr Pro Pro Pro Val Lys Ala Ser Phe Ser Ser Pro Thr Val
 305 310 315 320

Ser Ala Pro Ala Asn Val Asn Thr Thr Ser Ala Pro Pro Val Gln Thr
 325 330 335

Asp Ile Val Asn Thr Ser Ser Ile Ser Asp Leu Glu Asn Gln Val Leu
 340 345 350

Gln Met Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala
 355 360 365

Gly Glu Met Ile Asn Gln Val Ser Arg Leu Leu His Ser Pro Pro Asp
 370 375 380

Met Leu Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Asp Ile
 385 390 395 400

Gly Leu Gln Leu Asn Phe Ser Asn Thr Thr Ile Ser Leu Thr Ser Pro

405

410

415

Ser Leu Ala Leu Ala Val Ile Arg Val Asn Ala Ser Ser Phe Asn Thr
 420 425 430

Thr Thr Phe Val Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu Glu
 435 440 445

Thr Gln Ala Pro Glu Asn Ser Ile Gly Thr Ile Thr Leu Pro Ser Ser
 450 455 460

Leu Met Asn Asn Leu Pro Ala His Asp Met Glu Leu Ala Ser Arg Val
 465 470 475 480

Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu
 485 490 495

Glu Asn Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Ala Asn
 500 505 510

Leu Thr Val Arg Asn Leu Thr Arg Asn Val Thr Val Thr Leu Lys His
 515 520 525

Ile Asn Pro Ser Gln Asp Glu Leu Thr Val Arg Cys Val Phe Trp Asp
 530 535 540

Leu Gly Arg Asn Gly Gly Arg Gly Gly Trp Ser Asp Asn Gly Cys Ser
 545 550 555 560

Val Lys Asp Arg Arg Leu Asn Glu Thr Ile Cys Thr Cys Ser His Leu
 565 570 575

Thr Ser Phe Gly Val Leu Leu Asp Leu Ser Arg Thr Ser Val Leu Pro
 580 585 590

Ala Gln Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu
 595 600 605

Ser Ser Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu
 610 615 620

Lys Ile Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala
 625 630 635 640

Ala Leu Leu Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala
 645 650 655

Leu Tyr Lys Met Gln Gly Leu Cys Ile Ser Val Ala Val Phe Leu His
 660 665 670

Tyr Phe Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His
 675 680 685

Met Tyr Leu Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr
 690 695 700

Ile Leu Lys Phe Cys Ile Val Gly Trp Gly Val Pro Ala Val Val Val
 705 710 715 720

Thr Ile Ile Leu Thr Ile Ser Pro Asp Asn Tyr Gly Leu Gly Ser Tyr
 725 730 735

Gly Lys Phe Pro Asn Gly Ser Pro Asp Asp Phe Cys Trp Ile Asn Asn
 740 745 750

Asn Ala Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe
 755 760 765

Leu Leu Asn Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg
 770 775 780

Ile Lys Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln
 785 790 795 800

Asp Leu Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp
 805 810 815

Gly Phe Ala Phe Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr
 820 825 830

Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe
 835 840 845

Tyr Cys Val Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu
 850 855 860

Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr
865 870 875 880

Ala Thr Asn Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser
885 890 895

Ser Ser Asn Ser Leu Gln Ser Ser Ser Asn Ser Thr Asn Ser Thr Thr
900 905 910

Leu Leu Val Asn Asn Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn
915 920 925

Ala Ser Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp
930 935 940

Val Cys Leu His Asp Phe Thr Gly Lys Gln His Met Phe Asn Glu Lys
945 950 955 960

Glu Asp Ser Cys Asn Gly Lys Gly Arg Met Ala Leu Arg Arg Thr Ser
965 970 975

Lys Arg Gly Ser Leu His Phe Ile Glu Gln Met
980 985

<210> 46
<211> 1049
<212> PRT
<213> Homo sapiens

<400> 46

Gly Ser Gly Gly Gly Gly Ala Glu Ala Ala Gly Gly Gly Arg Arg Ala
1 5 10 15

Ala Ala Pro Glu Arg Gly Lys Gly Gly Pro Asp Gly Ala Ser Ser Gln
20 25 30

Pro Glu Asp Ala Ser Gly Arg Cys Ala Gln Arg Phe Ser Thr Leu Phe
35 40 45

Ser Glu Leu Ala Val Arg Met Val Phe Ser Val Arg Gln Cys Gly His
50 55 60

Val Gly Arg Thr Glu Glu Val Leu Leu Thr Phe Lys Ile Phe Leu Val

65		70		75		80									
Ile	Ile	Cys	Leu	His	Val	Val	Leu	Val	Thr	Ser	Leu	Glu	Glu	Asp	Thr
				85					90					95	
Asp	Asn	Ser	Ser	Leu	Ser	Pro	Pro	Pro	Ala	Lys	Leu	Ser	Val	Val	Ser
			100					105					110		
Phe	Ala	Pro	Ser	Ser	Asn	Gly	Thr	Pro	Asp	Val	Thr	Leu	Ser	Leu	Leu
		115					120					125			
Pro	Ser	Asn	Glu	Thr	Gly	Val	Lys	Pro	Gln	Arg	Asn	Ile	Cys	Asn	Leu
		130				135					140				
Ser	Ser	Ile	Cys	Asn	Asp	Ser	Ala	Phe	Phe	Arg	Gly	Glu	Ile	Met	Phe
145					150					155					160
Gln	Tyr	Asp	Lys	Glu	Ser	Thr	Val	Pro	Gln	Asn	Gln	His	Ile	Thr	Asn
				165					170					175	
Gly	Thr	Leu	Thr	Gly	Val	Leu	Ser	Leu	Ser	Glu	Leu	Lys	Arg	Ser	Glu
			180					185					190		
Leu	Asn	Lys	Thr	Leu	Gln	Thr	Leu	Ser	Glu	Thr	Tyr	Phe	Ile	Met	Cys
		195					200					205			
Ala	Thr	Ala	Glu	Ala	Gln	Ser	Thr	Leu	Asn	Cys	Thr	Phe	Thr	Ile	Lys
		210				215					220				
Leu	Asn	Asn	Thr	Met	Asn	Ala	Cys	Ala	Ala	Ile	Ala	Ala	Leu	Glu	Arg
225					230					235					240
Val	Lys	Ile	Arg	Pro	Met	Glu	His	Cys	Cys	Cys	Ser	Val	Arg	Ile	Pro
				245					250					255	
Cys	Pro	Ser	Ser	Pro	Glu	Glu	Leu	Gly	Lys	Leu	Gln	Cys	Asp	Leu	Gln
			260					265					270		
Asp	Pro	Ile	Val	Cys	Leu	Ala	Asp	His	Pro	Arg	Gly	Pro	Pro	Phe	Ser
		275					280					285			
Ser	Ser	Gln	Ser	Ile	Pro	Val	Val	Pro	Arg	Ala	Thr	Val	Leu	Ser	Gln
		290				295					300				

Val Pro Lys Ala Thr Ser Phe Ala Glu Pro Pro Asp Tyr Ser Pro Val
 305 310 315 320

Thr His Asn Val Pro Ser Pro Ile Gly Glu Ile Gln Pro Leu Ser Pro
 325 330 335

Gln Pro Ser Ala Pro Ile Ala Ser Ser Pro Ala Ile Asp Met Pro Pro
 340 345 350

Gln Ser Glu Thr Ile Ser Ser Pro Met Pro Gln Thr His Val Ser Gly
 355 360 365

Thr Pro Pro Pro Val Lys Ala Ser Phe Ser Ser Pro Thr Val Ser Ala
 370 375 380

Pro Ala Asn Val Asn Thr Thr Ser Ala Pro Pro Val Gln Thr Asp Ile
 385 390 395 400

Val Asn Thr Ser Ser Ile Ser Asp Leu Glu Asn Gln Val Leu Gln Met
 405 410 415

Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu
 420 425 430

Met Ile Asn Gln Val Ser Arg Leu Leu His Ser Pro Pro Asp Met Leu
 435 440 445

Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Asp Ile Gly Leu
 450 455 460

Gln Leu Asn Phe Ser Asn Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu
 465 470 475 480

Ala Leu Ala Val Ile Arg Val Asn Ala Ser Ser Phe Asn Thr Thr Thr
 485 490 495

Phe Val Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu Glu Thr Gln
 500 505 510

Ala Pro Glu Asn Ser Ile Gly Thr Ile Thr Leu Pro Ser Ser Leu Met
 515 520 525

Asn Asn Leu Pro Ala His Asp Met Glu Leu Ala Ser Arg Val Gln Phe
 530 535 540

Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn
 545 550 555 560

Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Ala Asn Leu Thr
 565 570 575

Val Arg Asn Leu Thr Arg Asn Val Thr Val Thr Leu Lys His Ile Asn
 580 585 590

Pro Ser Gln Asp Glu Leu Thr Val Arg Cys Val Phe Trp Asp Leu Gly
 595 600 605

Arg Asn Gly Gly Arg Gly Gly Trp Ser Asp Asn Gly Cys Ser Val Lys
 610 615 620

Asp Arg Arg Leu Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser
 625 630 635 640

Phe Gly Val Leu Leu Asp Leu Ser Arg Thr Ser Val Leu Pro Ala Gln
 645 650 655

Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser
 660 665 670

Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile
 675 680 685

Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu
 690 695 700

Leu Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr
 705 710 715 720

Lys Met Gln Gly Leu Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe
 725 730 735

Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr
 740 745 750

Leu Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu
 755 760 765

Lys Phe Cys Ile Val Gly Trp Gly Val Pro Ala Val Val Val Thr Ile
 770 775 780

Ile Leu Thr Ile Ser Pro Asp Asn Tyr Gly Leu Gly Ser Tyr Gly Lys
 785 790 795 800

Phe Pro Asn Gly Ser Pro Asp Asp Phe Cys Trp Ile Asn Asn Asn Ala
 805 810 815

Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu
 820 825 830

Asn Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys
 835 840 845

Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu
 850 855 860

Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe
 865 870 875 880

Ala Phe Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe
 885 890 895

Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys
 900 905 910

Val Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys
 915 920 925

Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr
 930 935 940

Asn Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser
 945 950 955 960

Asn Ser Leu Gln Ser Ser Ser Asn Ser Thr Asn Ser Thr Thr Leu Leu
 965 970 975

Val Asn Asn Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser

980

985

990

Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys
 995 1000 1005

Leu His Asp Phe Thr Gly Lys Gln His Met Phe Asn Glu Lys Glu
 1010 1015 1020

Asp Ser Cys Asn Gly Lys Gly Arg Met Ala Leu Arg Arg Thr Ser
 1025 1030 1035

Lys Arg Gly Ser Leu His Phe Ile Glu Gln Met
 1040 1045

<210> 47
 <211> 995
 <212> PRT
 <213> Homo sapiens

<400> 47

Met Val Phe Ser Val Arg Gln Cys Gly His Val Gly Arg Thr Glu Glu
 1 5 10 15

Val Leu Leu Thr Phe Lys Ile Phe Leu Val Ile Ile Cys Leu His Val
 20 25 30

Val Leu Val Thr Ser Leu Glu Glu Asp Thr Asp Asn Ser Ser Leu Ser
 35 40 45

Pro Pro Pro Ala Lys Leu Ser Val Val Ser Phe Ala Pro Ser Ser Asn
 50 55 60

Gly Thr Pro Asp Val Thr Leu Ser Leu Leu Pro Ser Asn Glu Thr Gly
 65 70 75 80

Val Lys Pro Gln Arg Asn Ile Cys Asn Leu Ser Ser Ile Cys Asn Asp
 85 90 95

Ser Ala Phe Phe Arg Gly Glu Ile Met Phe Gln Tyr Asp Lys Glu Ser
 100 105 110

Thr Val Pro Gln Asn Gln His Ile Thr Asn Gly Thr Leu Thr Gly Val
 115 120 125

Leu Ser Leu Ser Glu Leu Lys Arg Ser Glu Leu Asn Lys Thr Leu Gln
 130 135 140

Thr Leu Ser Glu Thr Tyr Phe Ile Met Cys Ala Thr Ala Glu Ala Gln
 145 150 155 160

Ser Thr Leu Asn Cys Thr Phe Thr Ile Lys Leu Asn Asn Thr Met Asn
 165 170 175

Ala Cys Ala Ala Ile Ala Ala Leu Glu Arg Val Lys Ile Arg Pro Met
 180 185 190

Glu His Cys Cys Cys Ser Val Arg Ile Pro Cys Pro Ser Ser Pro Glu
 195 200 205

Glu Leu Gly Lys Leu Gln Cys Asp Leu Gln Asp Pro Ile Val Cys Leu
 210 215 220

Ala Asp His Pro Arg Gly Pro Pro Phe Ser Ser Ser Gln Ser Ile Pro
 225 230 235 240

Val Val Pro Arg Ala Thr Val Leu Ser Gln Val Pro Lys Ala Thr Ser
 245 250 255

Phe Ala Glu Pro Pro Asp Tyr Ser Pro Val Thr His Asn Val Pro Ser
 260 265 270

Pro Ile Gly Glu Ile Gln Pro Leu Ser Pro Gln Pro Ser Ala Pro Ile
 275 280 285

Ala Ser Ser Pro Ala Ile Asp Met Pro Pro Gln Ser Glu Thr Ile Ser
 290 295 300

Ser Pro Met Pro Gln Thr His Val Ser Gly Thr Pro Pro Pro Val Lys
 305 310 315 320

Ala Ser Phe Ser Ser Pro Thr Val Ser Ala Pro Ala Asn Val Asn Thr
 325 330 335

Thr Ser Ala Pro Pro Val Gln Thr Asp Ile Val Asn Thr Ser Ser Ile
 340 345 350

Ser Asp Leu Glu Asn Gln Val Leu Gln Met Glu Lys Ala Leu Ser Leu
355 360 365

Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu Met Ile Asn Gln Val Ser
370 375 380

Arg Leu Leu His Ser Pro Pro Asp Met Leu Ala Pro Leu Ala Gln Arg
385 390 395 400

Leu Leu Lys Val Val Asp Asp Ile Gly Leu Gln Leu Asn Phe Ser Asn
405 410 415

Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg
420 425 430

Val Asn Ala Ser Ser Phe Asn Thr Thr Thr Phe Val Ala Gln Asp Pro
435 440 445

Ala Asn Leu Gln Val Ser Leu Glu Thr Gln Ala Pro Glu Asn Ser Ile
450 455 460

Gly Thr Ile Thr Leu Pro Ser Ser Leu Met Asn Asn Leu Pro Ala His
465 470 475 480

Asp Met Glu Leu Ala Ser Arg Val Gln Phe Asn Phe Phe Glu Thr Pro
485 490 495

Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu Ser Leu Ile Ser Tyr
500 505 510

Val Ile Ser Ser Ser Val Ala Asn Leu Thr Val Arg Asn Leu Thr Arg
515 520 525

Asn Val Thr Val Thr Leu Lys His Ile Asn Pro Ser Gln Asp Glu Leu
530 535 540

Thr Val Arg Cys Val Phe Trp Asp Leu Gly Arg Asn Gly Gly Arg Gly
545 550 555 560

Gly Trp Ser Asp Asn Gly Cys Ser Val Lys Asp Arg Arg Leu Asn Glu
565 570 575

Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe Gly Val Leu Leu Asp

580	585	590
Leu Ser Arg Thr Ser Val Leu Pro Ala Gln Met Met Ala Leu Thr Phe 595 600 605		
Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu Ser Val Thr 610 615 620		
Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp Tyr Pro Ser 625 630 635		
Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu Asn Leu Val 645 650 655		
Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Lys Met Gln Gly Leu Cys 660 665 670		
Ile Ser Val Ala Val Phe Leu His Tyr Phe Leu Leu Val Ser Phe Thr 675 680 685		
Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu Val Lys Val 690 695 700		
Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile Val Gly 705 710 715 720		
Trp Gly Val Pro Ala Val Val Val Thr Ile Ile Leu Thr Ile Ser Pro 725 730 735		
Asp Asn Tyr Gly Leu Gly Ser Tyr Gly Lys Phe Pro Asn Gly Ser Pro 740 745 750		
Asp Asp Phe Cys Trp Ile Asn Asn Asn Ala Val Phe Tyr Ile Thr Val 755 760 765		
Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn Val Ser Met Phe Ile 770 775 780		
Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys Lys Lys Gln Leu Gly 785 790 795 800		
Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser Ile Ala Gly Leu 805 810 815		

Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly
820 825 830

Pro Val Asn Val Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn Thr Leu
835 840 845

Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Val Ala Lys Glu Asn Val
850 855 860

Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg Leu Ala
865 870 875 880

Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn Gly Leu Lys Lys Gln
885 890 895

Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn Ser Leu Gln Ser Ser
900 905 910

Ser Asn Ser Thr Asn Ser Thr Thr Leu Leu Val Asn Asn Asp Cys Ser
915 920 925

Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn Gly Val
930 935 940

Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu His Asp Phe Thr Gly
945 950 955 960

Lys Gln His Met Phe Asn Glu Lys Glu Asp Ser Cys Asn Gly Lys Gly
965 970 975

Arg Met Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His Phe Ile
980 985 990

Glu Gln Met
995

<210> 48
<211> 1071
<212> PRT
<213> Homo sapiens
<400> 48

Gly Ser Gly Gly Gly Gly Ala Glu Ala Ala Gly Gly Gly Arg Arg Ala
 1 5 10 15
 Ala Ala Pro Glu Arg Gly Lys Gly Gly Pro Asp Gly Ala Ser Ser Gln
 20 25 30
 Pro Glu Asp Ala Ser Gly Arg Cys Ala Gln Arg Phe Ser Thr Leu Phe
 35 40 45
 Ser Glu Leu Ala Val Arg Met Val Phe Ser Val Arg Gln Cys Gly His
 50 55 60
 Val Gly Arg Thr Glu Glu Val Leu Leu Thr Phe Lys Ile Phe Leu Val
 65 70 75 80
 Ile Ile Cys Leu His Val Val Leu Val Thr Ser Leu Glu Glu Asp Thr
 85 90 95
 Asp Asn Ser Ser Leu Ser Pro Pro Pro Ala Lys Leu Ser Val Val Ser
 100 105 110
 Phe Ala Pro Ser Ser Asn Gly Thr Pro Glu Val Glu Thr Thr Ser Leu
 115 120 125
 Asn Asp Val Thr Leu Ser Leu Leu Pro Ser Asn Glu Thr Glu Lys Thr
 130 135 140
 Lys Ile Thr Ile Val Lys Thr Phe Asn Ala Ser Gly Val Lys Pro Gln
 145 150 155 160
 Arg Asn Ile Cys Asn Leu Ser Ser Ile Cys Asn Asp Ser Ala Phe Phe
 165 170 175
 Arg Gly Glu Ile Met Phe Gln Tyr Asp Lys Glu Ser Thr Val Pro Gln
 180 185 190
 Asn Gln His Ile Thr Asn Gly Thr Leu Thr Gly Val Leu Ser Leu Ser
 195 200 205
 Glu Leu Lys Arg Ser Glu Leu Asn Lys Thr Leu Gln Thr Leu Ser Glu
 210 215 220
 Thr Tyr Phe Ile Met Cys Ala Thr Ala Glu Ala Gln Ser Thr Leu Asn

225		230		235		240
Cys Thr Phe Thr	Ile Lys Leu Asn Asn Thr Met Asn Ala Cys Ala Ala	245	250	255		
Ile Ala Ala Leu Glu Arg Val Lys Ile Arg Pro Met Glu His Cys Cys	260	265	270			
Cys Ser Val Arg Ile Pro Cys Pro Ser Ser Pro Glu Glu Leu Gly Lys	275	280	285			
Leu Gln Cys Asp Leu Gln Asp Pro Ile Val Cys Leu Ala Asp His Pro	290	295	300			
Arg Gly Pro Pro Phe Ser Ser Ser Gln Ser Ile Pro Val Val Pro Arg	305	310	315	320		
Ala Thr Val Leu Ser Gln Val Pro Lys Ala Thr Ser Phe Ala Glu Pro	325	330	335			
Pro Asp Tyr Ser Pro Val Thr His Asn Val Pro Ser Pro Ile Gly Glu	340	345	350			
Ile Gln Pro Leu Ser Pro Gln Pro Ser Ala Pro Ile Ala Ser Ser Pro	355	360	365			
Ala Ile Asp Met Pro Pro Gln Ser Glu Thr Ile Ser Ser Pro Met Pro	370	375	380			
Gln Thr His Val Ser Gly Thr Pro Pro Pro Val Lys Ala Ser Phe Ser	385	390	395	400		
Ser Pro Thr Val Ser Ala Pro Ala Asn Val Asn Thr Thr Ser Ala Pro	405	410	415			
Pro Val Gln Thr Asp Ile Val Asn Thr Ser Ser Ile Ser Asp Leu Glu	420	425	430			
Asn Gln Val Leu Gln Met Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu	435	440	445			
Pro Asn Leu Ala Gly Glu Met Ile Asn Gln Val Ser Arg Leu Leu His	450	455	460			

Ser Pro Pro Asp Met Leu Ala Pro Leu Ala Gln Arg Leu Leu Lys Val
 465 470 475 480

Val Asp Asp Ile Gly Leu Gln Leu Asn Phe Ser Asn Thr Thr Ile Ser
 485 490 495

Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn Ala Ser
 500 505 510

Ser Phe Asn Thr Thr Thr Phe Val Ala Gln Asp Pro Ala Asn Leu Gln
 515 520 525

Val Ser Leu Glu Thr Gln Ala Pro Glu Asn Ser Ile Gly Thr Ile Thr
 530 535 540

Leu Pro Ser Ser Leu Met Asn Asn Leu Pro Ala His Asp Met Glu Leu
 545 550 555 560

Ala Ser Arg Val Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln
 565 570 575

Asp Pro Ser Leu Glu Asn Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser
 580 585 590

Ser Val Ala Asn Leu Thr Val Arg Asn Leu Thr Arg Asn Val Thr Val
 595 600 605

Thr Leu Lys His Ile Asn Pro Ser Gln Asp Glu Leu Thr Val Arg Cys
 610 615 620

Val Phe Trp Asp Leu Gly Arg Asn Gly Gly Arg Gly Gly Trp Ser Asp
 625 630 635 640

Asn Gly Cys Ser Val Lys Asp Arg Arg Leu Asn Glu Thr Ile Cys Thr
 645 650 655

Cys Ser His Leu Thr Ser Phe Gly Val Leu Leu Asp Leu Ser Arg Thr
 660 665 670

Ser Val Leu Pro Ala Gln Met Met Ala Leu Thr Phe Ile Thr Tyr Ile
 675 680 685

Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe
915 920 925

Ile Phe Ile Phe Tyr Cys Val Ala Lys Glu Asn Val Arg Lys Gln Trp
930 935 940

Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp
945 950 955 960

Trp Ser Lys Thr Ala Thr Asn Gly Leu Lys Lys Gln Thr Val Asn Gln
965 970 975

Gly Val Ser Ser Ser Ser Asn Ser Leu Gln Ser Ser Ser Asn Ser Thr
980 985 990

Asn Ser Thr Thr Leu Leu Val Asn Asn Asp Cys Ser Val His Ala Ser
995 1000 1005

Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe Ser
1010 1015 1020

Val Gln Asn Gly Asp Val Cys Leu His Asp Phe Thr Gly Lys Gln
1025 1030 1035

His Met Phe Asn Glu Lys Glu Asp Ser Cys Asn Gly Lys Gly Arg
1040 1045 1050

Met Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His Phe Ile
1055 1060 1065

Glu Gln Met
1070

<210> 49
<211> 1032
<212> PRT
<213> Homo sapiens

<400> 49

Gln Pro Val Thr Gly Thr Arg Arg Cys Thr Arg Ser Phe Leu Pro Ile
1 5 10 15

Ser Ser Glu Leu Pro Val Arg Met Leu Phe Ser Gly Gly Gln Tyr Ser
20 25 30

Pro Val Gly Arg Pro Glu Glu Val Leu Leu Ile Tyr Lys Ile Phe Leu
 35 40 45

Val Ile Ile Cys Phe His Val Ile Leu Val Thr Ser Leu Lys Glu Asn
 50 55 60

Gly Asn Ser Ser Leu Leu Ser Pro Ser Ala Glu Ser Ser Leu Val Ser
 65 70 75 80

Leu Ile Pro Tyr Ser Asn Gly Thr Pro Asp Ala Ala Ser Glu Val Leu
 85 90 95

Ser Thr Leu Asn Lys Thr Glu Lys Ser Lys Ile Thr Ile Val Lys Thr
 100 105 110

Phe Asn Ala Ser Gly Val Lys Ser Gln Arg Asn Ile Cys Asn Leu Ser
 115 120 125

Ser Leu Cys Asn Asp Ser Val Phe Phe Arg Gly Glu Ile Val Phe Gln
 130 135 140

His Asp Glu Asp His Asn Val Thr Gln Asn Gln Asp Thr Ala Asn Gly
 145 150 155 160

Thr Phe Ala Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Ser Glu Leu
 165 170 175

Asn Lys Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Val Cys Ala
 180 185 190

Thr Ala Glu Ala Gln Ser Thr Val Asn Cys Thr Phe Thr Val Lys Leu
 195 200 205

Asn Glu Thr Met Asn Val Cys Ala Met Met Val Thr Phe Gln Thr Val
 210 215 220

Gln Ile Arg Pro Met Glu Gln Cys Cys Cys Ser Pro Arg Thr Pro Cys
 225 230 235 240

Pro Ser Ser Pro Glu Glu Leu Glu Lys Leu Gln Cys Glu Leu Gln Asp
 245 250 255

Pro Ile Val Cys Leu Ala Asp Gln Pro His Gly Pro Pro Leu Ser Ser
 260 265 270

Ser Ser Lys Pro Val Val Pro Gln Ala Thr Ile Ile Ser His Val Ala
 275 280 285

Ser Asp Phe Ser Leu Ala Glu Pro Leu Asp His Ala Leu Met Thr Pro
 290 295 300

Ser Thr Pro Ser Leu Thr Gln Glu Ser Asn Leu Pro Ser Pro Gln Pro
 305 310 315 320

Thr Ile Pro Leu Ala Ser Ser Pro Ala Thr Asp Leu Pro Val Gln Ser
 325 330 335

Val Val Val Ser Ser Leu Pro Gln Thr Asp Leu Ser His Thr Leu Ser
 340 345 350

Pro Val Gln Ser Ser Ile Pro Ser Pro Thr Thr Pro Ala Pro Ser Val
 355 360 365

Pro Thr Glu Leu Val Thr Ile Ser Thr Pro Pro Gly Glu Thr Val Val
 370 375 380

Asn Thr Ser Thr Val Ser Asp Leu Glu Ala Gln Val Ser Gln Met Glu
 385 390 395 400

Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu Met
 405 410 415

Val Asn Arg Val Ser Lys Leu Leu His Ser Pro Pro Ala Leu Leu Ala
 420 425 430

Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Ala Ile Gly Leu Gln
 435 440 445

Leu Asn Phe Ser Ser Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala
 450 455 460

Leu Ala Val Ile Arg Val Asn Ala Ser Asn Phe Asn Thr Thr Thr Phe
 465 470 475 480

Ala Ala Gln Asp Pro Thr Asn Leu Gln Val Ser Leu Glu Thr Pro Pro
 485 490 495

Pro Glu Asn Ser Ile Gly Ala Ile Thr Leu Pro Ser Ser Leu Met Asn
 500 505 510

Asn Leu Pro Ala Asn Asp Val Glu Leu Ala Ser Arg Ile Gln Phe Asn
 515 520 525

Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu
 530 535 540

Thr Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Thr Asn Met Thr Ile
 545 550 555 560

Lys Asn Leu Thr Arg Asn Val Thr Val Ala Leu Lys His Ile Asn Pro
 565 570 575

Ser Pro Asp Asp Leu Thr Val Lys Cys Val Phe Trp Asp Leu Gly Arg
 580 585 590

Asn Gly Gly Lys Gly Gly Trp Ser Ser Asp Gly Cys Ser Val Lys Asp
 595 600 605

Lys Arg Met Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe
 610 615 620

Gly Ile Leu Leu Asp Leu Ser Arg Thr Ser Leu Pro Pro Ser Gln Met
 625 630 635 640

Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile
 645 650 655

Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg
 660 665 670

Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu
 675 680 685

Leu Leu Asn Leu Ile Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Asn
 690 695 700

Thr Arg Gly Phe Cys Ile Ala Val Ala Val Phe Leu His Tyr Phe Leu

705		710		715		720
Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu						
		725		730		735
Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys						
		740		745		750
Phe Cys Ile Val Gly Trp Gly Ile Pro Ala Val Val Val Ser Ile Val						
		755		760		765
Leu Thr Ile Ser Pro Asp Asn Tyr Gly Ile Gly Ser Tyr Gly Lys Phe						
		770		775		780
Pro Asn Gly Thr Pro Asp Asp Phe Cys Trp Ile Asn Ser Asn Val Val						
		785		790		800
Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn						
		805		810		815
Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys						
		820		825		830
Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg						
		835		840		845
Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala						
		850		855		860
Phe Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe Ala						
		865		870		875
						880
Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Ala						
		885		890		895
Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly						
		900		905		910
Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn						
		915		920		925
Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn						
		930		935		940

Ser Leu Gln Ser Ser Cys Asn Ser Thr Asn Ser Thr Thr Leu Leu Val
 945 950 955 960

Asn Ser Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr
 965 970 975

Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu
 980 985 990

His Asp Leu Thr Gly Lys Gln His Met Phe Ser Asp Lys Glu Asp Ser
 995 1000 1005

Cys Asn Gly Lys Ser Arg Ile Ala Leu Arg Arg Thr Ser Lys Arg
 1010 1015 1020

Gly Ser Leu His Phe Ile Glu Gln Met
 1025 1030

<210> 50
 <211> 1016
 <212> PRT
 <213> Homo sapiens

<400> 50

Gln Pro Val Thr Gly Thr Arg Arg Cys Thr Arg Ser Phe Leu Pro Ile
 1 5 10 15

Ser Ser Glu Leu Pro Val Arg Met Leu Phe Ser Gly Gly Gln Tyr Ser
 20 25 30

Pro Val Gly Arg Pro Glu Glu Val Leu Leu Ile Tyr Lys Ile Phe Leu
 35 40 45

Val Ile Ile Cys Phe His Val Ile Leu Val Thr Ser Leu Lys Glu Asn
 50 55 60

Gly Asn Ser Ser Leu Leu Ser Pro Ser Asp Ala Ala Ser Glu Val Leu
 65 70 75 80

Ser Thr Leu Asn Lys Thr Glu Lys Ser Lys Ile Thr Ile Val Lys Thr
 85 90 95

Phe Asn Ala Ser Gly Val Lys Ser Gln Arg Asn Ile Cys Asn Leu Ser
100 105 110
Ser Leu Cys Asn Asp Ser Val Phe Phe Arg Gly Glu Ile Val Phe Gln
115 120 125
His Asp Glu Asp His Asn Val Thr Gln Asn Gln Asp Thr Ala Asn Gly
130 135 140
Thr Phe Ala Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Ser Glu Leu
145 150 155 160
Asn Lys Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Val Cys Ala
165 170 175
Thr Ala Glu Ala Gln Ser Thr Val Asn Cys Thr Phe Thr Val Lys Leu
180 185 190
Asn Glu Thr Met Asn Val Cys Ala Met Met Val Thr Phe Gln Thr Val
195 200 205
Gln Ile Arg Pro Met Glu Gln Cys Cys Cys Ser Pro Arg Thr Pro Cys
210 215 220
Pro Ser Ser Pro Glu Glu Leu Glu Lys Leu Gln Cys Glu Leu Gln Asp
225 230 235 240
Pro Ile Val Cys Leu Ala Asp Gln Pro His Gly Pro Pro Leu Ser Ser
245 250 255
Ser Ser Lys Pro Val Val Pro Gln Ala Thr Ile Ile Ser His Val Ala
260 265 270
Ser Asp Phe Ser Leu Ala Glu Pro Leu Asp His Ala Leu Met Thr Pro
275 280 285
Ser Thr Pro Ser Leu Thr Gln Glu Ser Asn Leu Pro Ser Pro Gln Pro
290 295 300
Thr Ile Pro Leu Ala Ser Ser Pro Ala Thr Asp Leu Pro Val Gln Ser
305 310 315 320
Val Val Val Ser Ser Leu Pro Gln Thr Asp Leu Ser His Thr Leu Ser

325	330	335
Pro Val Gln Ser Ser Ile Pro Ser Pro Thr Thr Pro Ala Pro Ser Val		
340	345	350
Pro Thr Glu Leu Val Thr Ile Ser Thr Pro Pro Gly Glu Thr Val Val		
355	360	365
Asn Thr Ser Thr Val Ser Asp Leu Glu Ala Gln Val Ser Gln Met Glu		
370	375	380
Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu Met		
385	390	395
Val Asn Arg Val Ser Lys Leu Leu His Ser Pro Pro Ala Leu Leu Ala		
405	410	415
Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Ala Ile Gly Leu Gln		
420	425	430
Leu Asn Phe Ser Ser Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala		
435	440	445
Leu Ala Val Ile Arg Val Asn Ala Ser Asn Phe Asn Thr Thr Thr Phe		
450	455	460
Ala Ala Gln Asp Pro Thr Asn Leu Gln Val Ser Leu Glu Thr Pro Pro		
465	470	475
Pro Glu Asn Ser Ile Gly Ala Ile Thr Leu Pro Ser Ser Leu Met Asn		
485	490	495
Asn Leu Pro Ala Asn Asp Val Glu Leu Ala Ser Arg Ile Gln Phe Asn		
500	505	510
Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu		
515	520	525
Thr Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Thr Asn Met Thr Ile		
530	535	540
Lys Asn Leu Thr Arg Asn Val Thr Val Ala Leu Lys His Ile Asn Pro		
545	550	555
		560

Ser Pro Asp Asp Leu Thr Val Lys Cys Val Phe Trp Asp Leu Gly Arg
 565 570 575

Asn Gly Gly Lys Gly Gly Trp Ser Ser Asp Gly Cys Ser Val Lys Asp
 580 585 590

Lys Arg Met Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe
 595 600 605

Gly Ile Leu Leu Asp Leu Ser Arg Thr Ser Leu Pro Pro Ser Gln Met
 610 615 620

Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile
 625 630 635 640

Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg
 645 650 655

Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu
 660 665 670

Leu Leu Asn Leu Ile Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Asn
 675 680 685

Thr Arg Gly Phe Cys Ile Ala Val Ala Val Phe Leu His Tyr Phe Leu
 690 695 700

Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu
 705 710 715 720

Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys
 725 730 735

Phe Cys Ile Val Gly Trp Gly Ile Pro Ala Val Val Val Ser Ile Val
 740 745 750

Leu Thr Ile Ser Pro Asp Asn Tyr Gly Ile Gly Ser Tyr Gly Lys Phe
 755 760 765

Pro Asn Gly Thr Pro Asp Asp Phe Cys Trp Ile Asn Ser Asn Val Val
 770 775 780

Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn
785 790 795 800

Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys
805 810 815

Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg
820 825 830

Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala
835 840 845

Phe Phe Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe Ala
850 855 860

Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Ala
865 870 875 880

Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly
885 890 895

Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn
900 905 910

Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn
915 920 925

Ser Leu Gln Ser Ser Cys Asn Ser Thr Asn Ser Thr Thr Leu Leu Val
930 935 940

Asn Ser Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr
945 950 955 960

Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu
965 970 975

His Asp Leu Thr Gly Lys Gln His Met Phe Ser Asp Lys Glu Asp Ser
980 985 990

Cys Asn Gly Lys Ser Arg Ile Ala Leu Arg Arg Thr Ser Lys Arg Gly
995 1000 1005

Ser Leu His Phe Ile Glu Gln Met
 1010 1015

<210> 51
 <211> 993
 <212> PRT
 <213> Homo sapiens

<400> 51

Met Leu Phe Ser Gly Gly Gln Tyr Ser Pro Val Gly Arg Pro Glu Glu
 1 5 10 15

Val Leu Leu Ile Tyr Lys Ile Phe Leu Val Ile Ile Cys Phe His Val
 20 25 30

Ile Leu Val Thr Ser Leu Lys Glu Asn Gly Asn Ser Ser Leu Leu Ser
 35 40 45

Pro Ser Asp Ala Ala Ser Glu Val Leu Ser Thr Leu Asn Lys Thr Glu
 50 55 60

Lys Ser Lys Ile Thr Ile Val Lys Thr Phe Asn Ala Ser Gly Val Lys
 65 70 75 80

Ser Gln Arg Asn Ile Cys Asn Leu Ser Ser Leu Cys Asn Asp Ser Val
 85 90 95

Phe Phe Arg Gly Glu Ile Val Phe Gln His Asp Glu Asp His Asn Val
 100 105 110

Thr Gln Asn Gln Asp Thr Ala Asn Gly Thr Phe Ala Gly Val Leu Ser
 115 120 125

Leu Ser Glu Leu Lys Arg Ser Glu Leu Asn Lys Thr Leu Gln Thr Leu
 130 135 140

Ser Glu Thr Tyr Phe Ile Val Cys Ala Thr Ala Glu Ala Gln Ser Thr
 145 150 155 160

Val Asn Cys Thr Phe Thr Val Lys Leu Asn Glu Thr Met Asn Val Cys
 165 170 175

Ala Met Met Val Thr Phe Gln Thr Val Gln Ile Arg Pro Met Glu Gln
 180 185 190

Cys Cys Cys Ser Pro Arg Thr Pro Cys Pro Ser Ser Pro Glu Glu Leu
 195 200 205

Glu Lys Leu Gln Cys Glu Leu Gln Asp Pro Ile Val Cys Leu Ala Asp
 210 215 220

Gln Pro His Gly Pro Pro Leu Ser Ser Ser Ser Lys Pro Val Val Pro
 225 230 235 240

Gln Ala Thr Ile Ile Ser His Val Ala Ser Asp Phe Ser Leu Ala Glu
 245 250 255

Pro Leu Asp His Ala Leu Met Thr Pro Ser Thr Pro Ser Leu Thr Gln
 260 265 270

Glu Ser Asn Leu Pro Ser Pro Gln Pro Thr Ile Pro Leu Ala Ser Ser
 275 280 285

Pro Ala Thr Asp Leu Pro Val Gln Ser Val Val Val Ser Ser Leu Pro
 290 295 300

Gln Thr Asp Leu Ser His Thr Leu Ser Pro Val Gln Ser Ser Ile Pro
 305 310 315 320

Ser Pro Thr Thr Pro Ala Pro Ser Val Pro Thr Glu Leu Val Thr Ile
 325 330 335

Ser Thr Pro Pro Gly Glu Thr Val Val Asn Thr Ser Thr Val Ser Asp
 340 345 350

Leu Glu Ala Gln Val Ser Gln Met Glu Lys Ala Leu Ser Leu Gly Ser
 355 360 365

Leu Glu Pro Asn Leu Ala Gly Glu Met Val Asn Arg Val Ser Lys Leu
 370 375 380

Leu His Ser Pro Pro Ala Leu Leu Ala Pro Leu Ala Gln Arg Leu Leu
 385 390 395 400

Lys Val Val Asp Ala Ile Gly Leu Gln Leu Asn Phe Ser Ser Thr Thr
 405 410 415

Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn
 420 425 430

Ala Ser Asn Phe Asn Thr Thr Thr Phe Ala Ala Gln Asp Pro Thr Asn
 435 440 445

Leu Gln Val Ser Leu Glu Thr Pro Pro Pro Glu Asn Ser Ile Gly Ala
 450 455 460

Ile Thr Leu Pro Ser Ser Leu Met Asn Asn Leu Pro Ala Asn Asp Val
 465 470 475 480

Glu Leu Ala Ser Arg Ile Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu
 485 490 495

Phe Gln Asp Pro Ser Leu Glu Asn Leu Thr Leu Ile Ser Tyr Val Ile
 500 505 510

Ser Ser Ser Val Thr Asn Met Thr Ile Lys Asn Leu Thr Arg Asn Val
 515 520 525

Thr Val Ala Leu Lys His Ile Asn Pro Ser Pro Asp Asp Leu Thr Val
 530 535 540

Lys Cys Val Phe Trp Asp Leu Gly Arg Asn Gly Gly Lys Gly Gly Trp
 545 550 555 560

Ser Ser Asp Gly Cys Ser Val Lys Asp Lys Arg Met Asn Glu Thr Ile
 565 570 575

Cys Thr Cys Ser His Leu Thr Ser Phe Gly Ile Leu Leu Asp Leu Ser
 580 585 590

Arg Thr Ser Leu Pro Pro Ser Gln Met Met Ala Leu Thr Phe Ile Thr
 595 600 605

Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu Ser Val Thr Leu Val
 610 615 620

Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp Tyr Pro Ser Lys Ile
 625 630 635 640

Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu Asn Leu Ile Phe Leu
 645 650 655

Leu Asp Ser Trp Ile Ala Leu Tyr Asn Thr Arg Gly Phe Cys Ile Ala
 660 665 670

Val Ala Val Phe Leu His Tyr Phe Leu Leu Val Ser Phe Thr Trp Met
 675 680 685

Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu Val Lys Val Phe Asn
 690 695 700

Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile Val Gly Trp Gly
 705 710 715 720

Ile Pro Ala Val Val Val Ser Ile Val Leu Thr Ile Ser Pro Asp Asn
 725 730 735

Tyr Gly Ile Gly Ser Tyr Gly Lys Phe Pro Asn Gly Thr Pro Asp Asp
 740 745 750

Phe Cys Trp Ile Asn Ser Asn Val Val Phe Tyr Ile Thr Val Val Gly
 755 760 765

Tyr Phe Cys Val Ile Phe Leu Leu Asn Val Ser Met Phe Ile Val Val
 770 775 780

Leu Val Gln Leu Cys Arg Ile Lys Lys Lys Lys Gln Leu Gly Ala Gln
 785 790 795 800

Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser Ile Ala Gly Leu Thr Phe
 805 810 815

Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Val
 820 825 830

Asn Val Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly
 835 840 845

Phe Phe Ile Phe Ile Phe Tyr Cys Ala Ala Lys Glu Asn Val Arg Lys
 850 855 860

Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn

865 870 875 880
 Ser Asp Trp Ser Lys Thr Ala Thr Asn Gly Leu Lys Lys Gln Thr Val
 885 890 895
 Asn Gln Gly Val Ser Ser Ser Ser Asn Ser Leu Gln Ser Ser Cys Asn
 900 905 910
 Ser Thr Asn Ser Thr Thr Leu Leu Val Asn Ser Asp Cys Ser Val His
 915 920 925
 Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe
 930 935 940
 Ser Val Gln Asn Gly Asp Val Cys Leu His Asp Leu Thr Gly Lys Gln
 945 950 955 960
 His Met Phe Ser Asp Lys Glu Asp Ser Cys Asn Gly Lys Ser Arg Ile
 965 970 975
 Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His Phe Ile Glu Gln
 980 985 990

 Met

 <210> 52
 <211> 1029
 <212> PRT
 <213> Homo sapiens

 <400> 52

 Gln Pro Val Thr Gly Thr Arg Arg Cys Thr Arg Ser Phe Leu Pro Ile
 1 5 10 15

 Ser Ser Glu Leu Pro Val Arg Met Leu Phe Ser Gly Gly Gln Tyr Ser
 20 25 30

 Pro Val Gly Arg Pro Glu Glu Val Leu Leu Ile Tyr Lys Ile Phe Leu
 35 40 45

 Val Ile Ile Cys Phe His Val Ile Leu Val Thr Ser Leu Lys Glu Asn
 50 55 60

Gly	Asn	Ser	Ser	Leu	Leu	Ser	Pro	Ser	Ala	Glu	Ser	Ser	Leu	Val	Ser	65	70	75	80
Leu	Ile	Pro	Tyr	Ser	Asn	Asp	Ala	Ala	Ser	Glu	Val	Leu	Ser	Thr	Leu	85	90	95	
Asn	Lys	Thr	Glu	Lys	Ser	Lys	Ile	Thr	Ile	Val	Lys	Thr	Phe	Asn	Ala	100	105	110	
Ser	Gly	Val	Lys	Ser	Gln	Arg	Asn	Ile	Cys	Asn	Leu	Ser	Ser	Leu	Cys	115	120	125	
Asn	Asp	Ser	Val	Phe	Phe	Arg	Gly	Glu	Ile	Val	Phe	Gln	His	Asp	Glu	130	135	140	
Asp	His	Asn	Val	Thr	Gln	Asn	Gln	Asp	Thr	Ala	Asn	Gly	Thr	Phe	Ala	145	150	155	160
Gly	Val	Leu	Ser	Leu	Ser	Glu	Leu	Lys	Arg	Ser	Glu	Leu	Asn	Lys	Thr	165	170	175	
Leu	Gln	Thr	Leu	Ser	Glu	Thr	Tyr	Phe	Ile	Val	Cys	Ala	Thr	Ala	Glu	180	185	190	
Ala	Gln	Ser	Thr	Val	Asn	Cys	Thr	Phe	Thr	Val	Lys	Leu	Asn	Glu	Thr	195	200	205	
Met	Asn	Val	Cys	Ala	Met	Met	Val	Thr	Phe	Gln	Thr	Val	Gln	Ile	Arg	210	215	220	
Pro	Met	Glu	Gln	Cys	Cys	Cys	Ser	Pro	Arg	Thr	Pro	Cys	Pro	Ser	Ser	225	230	235	240
Pro	Glu	Glu	Leu	Glu	Lys	Leu	Gln	Cys	Glu	Leu	Gln	Asp	Pro	Ile	Val	245	250	255	
Cys	Leu	Ala	Asp	Gln	Pro	His	Gly	Pro	Pro	Leu	Ser	Ser	Ser	Ser	Lys	260	265	270	
Pro	Val	Val	Pro	Gln	Ala	Thr	Ile	Ile	Ser	His	Val	Ala	Ser	Asp	Phe	275	280	285	

Ser Leu Ala Glu Pro Leu Asp His Ala Leu Met Thr Pro Ser Thr Pro
290 295 300

Ser Leu Thr Gln Glu Ser Asn Leu Pro Ser Pro Gln Pro Thr Ile Pro
305 310 315 320

Leu Ala Ser Ser Pro Ala Thr Asp Leu Pro Val Gln Ser Val Val Val
325 330 335

Ser Ser Leu Pro Gln Thr Asp Leu Ser His Thr Leu Ser Pro Val Gln
340 345 350

Ser Ser Ile Pro Ser Pro Thr Thr Pro Ala Pro Ser Val Pro Thr Glu
355 360 365

Leu Val Thr Ile Ser Thr Pro Pro Gly Glu Thr Val Val Asn Thr Ser
370 375 380

Thr Val Ser Asp Leu Glu Ala Gln Val Ser Gln Met Glu Lys Ala Leu
385 390 395 400

Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu Met Val Asn Arg
405 410 415

Val Ser Lys Leu Leu His Ser Pro Pro Ala Leu Leu Ala Pro Leu Ala
420 425 430

Gln Arg Leu Leu Lys Val Val Asp Ala Ile Gly Leu Gln Leu Asn Phe
435 440 445

Ser Ser Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val
450 455 460

Ile Arg Val Asn Ala Ser Asn Phe Asn Thr Thr Thr Phe Ala Ala Gln
465 470 475 480

Asp Pro Thr Asn Leu Gln Val Ser Leu Glu Thr Pro Pro Pro Glu Asn
485 490 495

Ser Ile Gly Ala Ile Thr Leu Pro Ser Ser Leu Met Asn Asn Leu Pro
500 505 510

Ala Asn Asp Val Glu Leu Ala Ser Arg Ile Gln Phe Asn Phe Phe Glu

515	520	525
Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu Thr Leu Ile 530 535 540		
Ser Tyr Val Ile Ser Ser Ser Val Thr Asn Met Thr Ile Lys Asn Leu 545 550 555 560		
Thr Arg Asn Val Thr Val Ala Leu Lys His Ile Asn Pro Ser Pro Asp 565 570 575		
Asp Leu Thr Val Lys Cys Val Phe Trp Asp Leu Gly Arg Asn Gly Gly 580 585 590		
Lys Gly Gly Trp Ser Ser Asp Gly Cys Ser Val Lys Asp Lys Arg Met 595 600 605		
Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe Gly Ile Leu 610 615 620		
Leu Asp Leu Ser Arg Thr Ser Leu Pro Pro Ser Gln Met Met Ala Leu 625 630 635 640		
Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu Ser 645 650 655		
Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp Tyr 660 665 670		
Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu Asn 675 680 685		
Leu Ile Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Asn Thr Arg Gly 690 695 700		
Phe Cys Ile Ala Val Ala Val Phe Leu His Tyr Phe Leu Leu Val Ser 705 710 715 720		
Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu Val 725 730 735		
Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile 740 745 750		

Val Gly Trp Gly Ile Pro Ala Val Val Val Ser Ile Val Leu Thr Ile
 755 760 765

Ser Pro Asp Asn Tyr Gly Ile Gly Ser Tyr Gly Lys Phe Pro Asn Gly
 770 775 780

Thr Pro Asp Asp Phe Cys Trp Ile Asn Ser Asn Val Val Phe Tyr•Ile
 785 790 795 800

Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn Val Ser Met
 805 810 815

Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys Lys Lys Gln
 820 825 830

Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser Ile Ala
 835 840 845

Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe Phe Ala
 850 855 860

Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn
 865 870 875 880

Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Ala Ala Lys Glu
 885 890 895

Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg
 900 905 910

Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn Gly Leu Lys
 915 920 925

Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn Ser Leu Gln
 930 935 940

Ser Ser Cys Asn Ser Thr Asn Ser Thr Thr Leu Leu Val Asn Ser Asp
 945 950 955 960

Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn
 965 970 975

Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu His Asp Leu
 980 985 990

Thr Gly Lys Gln His Met Phe Ser Asp Lys Glu Asp Ser Cys Asn Gly
 995 1000 1005

Lys Ser Arg Ile Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu
 1010 1015 1020

His Phe Ile Glu Gln Met
 1025

<210> 53
 <211> 1006
 <212> PRT
 <213> Homo sapiens

<400> 53

Met Leu Phe Ser Gly Gly Gln Tyr Ser Pro Val Gly Arg Pro Glu Glu
 1 5 10 15

Val Leu Leu Ile Tyr Lys Ile Phe Leu Val Ile Ile Cys Phe His Val
 20 25 30

Ile Leu Val Thr Ser Leu Lys Glu Asn Gly Asn Ser Ser Leu Leu Ser
 35 40 45

Pro Ser Ala Glu Ser Ser Leu Val Ser Leu Ile Pro Tyr Ser Asn Asp
 50 55 60

Ala Ala Ser Glu Val Leu Ser Thr Leu Asn Lys Thr Glu Lys Ser Lys
 65 70 75 80

Ile Thr Ile Val Lys Thr Phe Asn Ala Ser Gly Val Lys Ser Gln Arg
 85 90 95

Asn Ile Cys Asn Leu Ser Ser Leu Cys Asn Asp Ser Val Phe Phe Arg
 100 105 110

Gly Glu Ile Val Phe Gln His Asp Glu Asp His Asn Val Thr Gln Asn
 115 120 125

Gln Asp Thr Ala Asn Gly Thr Phe Ala Gly Val Leu Ser Leu Ser Glu

Gln Val Ser Gln Met Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro
 370 375 380

Asn Leu Ala Gly Glu Met Val Asn Arg Val Ser Lys Leu Leu His Ser
 385 390 395 400

Pro Pro Ala Leu Leu Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val
 405 410 415

Asp Ala Ile Gly Leu Gln Leu Asn Phe Ser Ser Thr Thr Ile Ser Leu
 420 425 430

Thr Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn Ala Ser Asn
 435 440 445

Phe Asn Thr Thr Thr Phe Ala Ala Gln Asp Pro Thr Asn Leu Gln Val
 450 455 460

Ser Leu Glu Thr Pro Pro Pro Glu Asn Ser Ile Gly Ala Ile Thr Leu
 465 470 475 480

Pro Ser Ser Leu Met Asn Asn Leu Pro Ala Asn Asp Val Glu Leu Ala
 485 490 495

Ser Arg Ile Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp
 500 505 510

Pro Ser Leu Glu Asn Leu Thr Leu Ile Ser Tyr Val Ile Ser Ser Ser
 515 520 525

Val Thr Asn Met Thr Ile Lys Asn Leu Thr Arg Asn Val Thr Val Ala
 530 535 540

Leu Lys His Ile Asn Pro Ser Pro Asp Asp Leu Thr Val Lys Cys Val
 545 550 555 560

Phe Trp Asp Leu Gly Arg Asn Gly Gly Lys Gly Gly Trp Ser Ser Asp
 565 570 575

Gly Cys Ser Val Lys Asp Lys Arg Met Asn Glu Thr Ile Cys Thr Cys
 580 585 590

Ser His Leu Thr Ser Phe Gly Ile Leu Leu Asp Leu Ser Arg Thr Ser
 595 600 605

Leu Pro Pro Ser Gln Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly
 610 615 620

Cys Gly Leu Ser Ser Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile
 625 630 635 640

Ala Phe Glu Lys Ile Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln
 645 650 655

Leu Cys Ala Ala Leu Leu Leu Leu Asn Leu Ile Phe Leu Leu Asp Ser
 660 665 670

Trp Ile Ala Leu Tyr Asn Thr Arg Gly Phe Cys Ile Ala Val Ala Val
 675 680 685

Phe Leu His Tyr Phe Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu
 690 695 700

Ala Phe His Met Tyr Leu Ala Leu Val Lys Val Phe Asn Thr Tyr Ile
 705 710 715 720

Arg Lys Tyr Ile Leu Lys Phe Cys Ile Val Gly Trp Gly Ile Pro Ala
 725 730 735

Val Val Val Ser Ile Val Leu Thr Ile Ser Pro Asp Asn Tyr Gly Ile
 740 745 750

Gly Ser Tyr Gly Lys Phe Pro Asn Gly Thr Pro Asp Asp Phe Cys Trp
 755 760 765

Ile Asn Ser Asn Val Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys
 770 775 780

Val Ile Phe Leu Leu Asn Val Ser Met Phe Ile Val Val Leu Val Gln
 785 790 795 800

Leu Cys Arg Ile Lys Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr
 805 810 815

Ser Ile Gln Asp Leu Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly
820 825 830

Ile Thr Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Val Asn Val Thr
835 840 845

Phe Met Tyr Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile
850 855 860

Phe Ile Phe Tyr Cys Ala Ala Lys Glu Asn Val Arg Lys Gln Trp Arg
865 870 875 880

Arg Tyr Leu Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp
885 890 895

Ser Lys Thr Ala Thr Asn Gly Leu Lys Lys Gln Thr Val Asn Gln Gly
900 905 910

Val Ser Ser Ser Ser Asn Ser Leu Gln Ser Ser Cys Asn Ser Thr Asn
915 920 925

Ser Thr Thr Leu Leu Val Asn Ser Asp Cys Ser Val His Ala Ser Gly
930 935 940

Asn Gly Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln
945 950 955 960

Asn Gly Asp Val Cys Leu His Asp Leu Thr Gly Lys Gln His Met Phe
965 970 975

Ser Asp Lys Glu Asp Ser Cys Asn Gly Lys Ser Arg Ile Ala Leu Arg
980 985 990

Arg Thr Ser Lys Arg Gly Ser Leu His Phe Ile Glu Gln Met
995 1000 1005

<210> 54
<211> 1005
<212> PRT
<213> Homo sapiens

<400> 54

Gln Pro Val Thr Gly Thr Arg Arg Cys Thr Arg Ser Phe Leu Pro Ile
1 5 10 15

Ser	Ser	Glu	Leu	Pro	Val	Arg	Met	Leu	Phe	Ser	Gly	Gly	Gln	Tyr	Ser
			20					25					30		
Pro	Val	Gly	Arg	Pro	Glu	Glu	Val	Leu	Leu	Ile	Tyr	Lys	Ile	Phe	Leu
		35					40					45			
Val	Ile	Ile	Cys	Phe	His	Val	Ile	Leu	Val	Thr	Ser	Leu	Lys	Asp	Ala
	50					55					60				
Ala	Ser	Glu	Val	Leu	Ser	Thr	Leu	Asn	Lys	Thr	Glu	Lys	Ser	Lys	Ile
65					70					75					80
Thr	Ile	Val	Lys	Thr	Phe	Asn	Ala	Ser	Gly	Val	Lys	Ser	Gln	Arg	Asn
				85					90					95	
Ile	Cys	Asn	Leu	Ser	Ser	Leu	Cys	Asn	Asp	Ser	Val	Phe	Phe	Arg	Gly
			100					105					110		
Glu	Ile	Val	Phe	Gln	His	Asp	Glu	Asp	His	Asn	Val	Thr	Gln	Asn	Gln
		115					120					125			
Asp	Thr	Ala	Asn	Gly	Thr	Phe	Ala	Gly	Val	Leu	Ser	Leu	Ser	Glu	Leu
	130					135					140				
Lys	Arg	Ser	Glu	Leu	Asn	Lys	Thr	Leu	Gln	Thr	Leu	Ser	Glu	Thr	Tyr
145					150					155					160
Phe	Ile	Val	Cys	Ala	Thr	Ala	Glu	Ala	Gln	Ser	Thr	Val	Asn	Cys	Thr
				165					170					175	
Phe	Thr	Val	Lys	Leu	Asn	Glu	Thr	Met	Asn	Val	Cys	Ala	Met	Met	Val
			180					185					190		
Thr	Phe	Gln	Thr	Val	Gln	Ile	Arg	Pro	Met	Glu	Gln	Cys	Cys	Cys	Ser
		195					200					205			
Pro	Arg	Thr	Pro	Cys	Pro	Ser	Ser	Pro	Glu	Glu	Leu	Glu	Lys	Leu	Gln
	210					215					220				
Cys	Glu	Leu	Gln	Asp	Pro	Ile	Val	Cys	Leu	Ala	Asp	Gln	Pro	His	Gly
225					230					235					240

Pro Pro Leu Ser Ser Ser Ser Lys Pro Val Val Pro Gln Ala Thr Ile
 245 250 255

Ile Ser His Val Ala Ser Asp Phe Ser Leu Ala Glu Pro Leu Asp His
 260 265 270

Ala Leu Met Thr Pro Ser Thr Pro Ser Leu Thr Gln Glu Ser Asn Leu
 275 280 285

Pro Ser Pro Gln Pro Thr Ile Pro Leu Ala Ser Ser Pro Ala Thr Asp
 290 295 300

Leu Pro Val Gln Ser Val Val Val Ser Ser Leu Pro Gln Thr Asp Leu
 305 310 315 320

Ser His Thr Leu Ser Pro Val Gln Ser Ser Ile Pro Ser Pro Thr Thr
 325 330 335

Pro Ala Pro Ser Val Pro Thr Glu Leu Val Thr Ile Ser Thr Pro Pro
 340 345 350

Gly Glu Thr Val Val Asn Thr Ser Thr Val Ser Asp Leu Glu Ala Gln
 355 360 365

Val Ser Gln Met Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn
 370 375 380

Leu Ala Gly Glu Met Val Asn Arg Val Ser Lys Leu Leu His Ser Pro
 385 390 395 400

Pro Ala Leu Leu Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp
 405 410 415

Ala Ile Gly Leu Gln Leu Asn Phe Ser Ser Thr Thr Ile Ser Leu Thr
 420 425 430

Ser Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn Ala Ser Asn Phe
 435 440 445

Asn Thr Thr Thr Phe Ala Ala Gln Asp Pro Thr Asn Leu Gln Val Ser
 450 455 460

Leu Glu Thr Pro Pro Pro Glu Asn Ser Ile Gly Ala Ile Thr Leu Pro
 465 470 475 480

Ser Ser Leu Met Asn Asn Leu Pro Ala Asn Asp Val Glu Leu Ala Ser
 485 490 495

Arg Ile Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro
 500 505 510

Ser Leu Glu Asn Leu Thr Leu Ile Ser Tyr Val Ile Ser Ser Ser Val
 515 520 525

Thr Asn Met Thr Ile Lys Asn Leu Thr Arg Asn Val Thr Val Ala Leu
 530 535 540

Lys His Ile Asn Pro Ser Pro Asp Asp Leu Thr Val Lys Cys Val Phe
 545 550 555 560

Trp Asp Leu Gly Arg Asn Gly Gly Lys Gly Gly Trp Ser Ser Asp Gly
 565 570 575

Cys Ser Val Lys Asp Lys Arg Met Asn Glu Thr Ile Cys Thr Cys Ser
 580 585 590

His Leu Thr Ser Phe Gly Ile Leu Leu Asp Leu Ser Arg Thr Ser Leu
 595 600 605

Pro Pro Ser Gln Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys
 610 615 620

Gly Leu Ser Ser Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala
 625 630 635 640

Phe Glu Lys Ile Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu
 645 650 655

Cys Ala Ala Leu Leu Leu Leu Asn Leu Ile Phe Leu Leu Asp Ser Trp
 660 665 670

Ile Ala Leu Tyr Asn Thr Arg Gly Phe Cys Ile Ala Val Ala Val Phe
 675 680 685

Leu His Tyr Phe Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala

690					695					700					
Phe	His	Met	Tyr	Leu	Ala	Leu	Val	Lys	Val	Phe	Asn	Thr	Tyr	Ile	Arg
705					710					715					720
Lys	Tyr	Ile	Leu	Lys	Phe	Cys	Ile	Val	Gly	Trp	Gly	Ile	Pro	Ala	Val
				725					730					735	
Val	Val	Ser	Ile	Val	Leu	Thr	Ile	Ser	Pro	Asp	Asn	Tyr	Gly	Ile	Gly
			740					745					750		
Ser	Tyr	Gly	Lys	Phe	Pro	Asn	Gly	Thr	Pro	Asp	Asp	Phe	Cys	Trp	Ile
		755					760					765			
Asn	Ser	Asn	Val	Val	Phe	Tyr	Ile	Thr	Val	Val	Gly	Tyr	Phe	Cys	Val
	770					775					780				
Ile	Phe	Leu	Leu	Asn	Val	Ser	Met	Phe	Ile	Val	Val	Leu	Val	Gln	Leu
785				790						795				800	
Cys	Arg	Ile	Lys	Lys	Lys	Lys	Gln	Leu	Gly	Ala	Gln	Arg	Lys	Thr	Ser
				805					810					815	
Ile	Gln	Asp	Leu	Arg	Ser	Ile	Ala	Gly	Leu	Thr	Phe	Leu	Leu	Gly	Ile
			820					825					830		
Thr	Trp	Gly	Phe	Ala	Phe	Phe	Ala	Trp	Gly	Pro	Val	Asn	Val	Thr	Phe
		835					840					845			
Met	Tyr	Leu	Phe	Ala	Ile	Phe	Asn	Thr	Leu	Gln	Gly	Phe	Phe	Ile	Phe
	850					855					860				
Ile	Phe	Tyr	Cys	Ala	Ala	Lys	Glu	Asn	Val	Arg	Lys	Gln	Trp	Arg	Arg
865				870						875				880	
Tyr	Leu	Cys	Cys	Gly	Lys	Leu	Arg	Leu	Ala	Glu	Asn	Ser	Asp	Trp	Ser
				885					890					895	
Lys	Thr	Ala	Thr	Asn	Gly	Leu	Lys	Lys	Gln	Thr	Val	Asn	Gln	Gly	Val
			900					905					910		
Ser	Ser	Ser	Ser	Asn	Ser	Leu	Gln	Ser	Ser	Cys	Asn	Ser	Thr	Asn	Ser
		915				920					925				

Thr Thr Leu Leu Val Asn Ser Asp Cys Ser Val His Ala Ser Gly Asn
 930 935 940

Gly Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn
 945 950 955 960

Gly Asp Val Cys Leu His Asp Leu Thr Gly Lys Gln His Met Phe Ser
 965 970 975

Asp Lys Glu Asp Ser Cys Asn Gly Lys Ser Arg Ile Ala Leu Arg Arg
 980 985 990

Thr Ser Lys Arg Gly Ser Leu His Phe Ile Glu Gln Met
 995 1000 1005

<210> 55
 <211> 982
 <212> PRT
 <213> Homo sapiens

<400> 55

Met Leu Phe Ser Gly Gly Gln Tyr Ser Pro Val Gly Arg Pro Glu Glu
 1 5 10 15

Val Leu Leu Ile Tyr Lys Ile Phe Leu Val Ile Ile Cys Phe His Val
 20 25 30

Ile Leu Val Thr Ser Leu Lys Asp Ala Ala Ser Glu Val Leu Ser Thr
 35 40 45

Leu Asn Lys Thr Glu Lys Ser Lys Ile Thr Ile Val Lys Thr Phe Asn
 50 55 60

Ala Ser Gly Val Lys Ser Gln Arg Asn Ile Cys Asn Leu Ser Ser Leu
 65 70 75 80

Cys Asn Asp Ser Val Phe Phe Arg Gly Glu Ile Val Phe Gln His Asp
 85 90 95

Glu Asp His Asn Val Thr Gln Asn Gln Asp Thr Ala Asn Gly Thr Phe
 100 105 110

Ala Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Ser Glu Leu Asn Lys
 115 120 125

Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Val Cys Ala Thr Ala
 130 135 140

Glu Ala Gln Ser Thr Val Asn Cys Thr Phe Thr Val Lys Leu Asn Glu
 145 150 155 160

Thr Met Asn Val Cys Ala Met Met Val Thr Phe Gln Thr Val Gln Ile
 165 170 175

Arg Pro Met Glu Gln Cys Cys Cys Ser Pro Arg Thr Pro Cys Pro Ser
 180 185 190

Ser Pro Glu Glu Leu Glu Lys Leu Gln Cys Glu Leu Gln Asp Pro Ile
 195 200 205

Val Cys Leu Ala Asp Gln Pro His Gly Pro Pro Leu Ser Ser Ser Ser
 210 215 220

Lys Pro Val Val Pro Gln Ala Thr Ile Ile Ser His Val Ala Ser Asp
 225 230 235 240

Phe Ser Leu Ala Glu Pro Leu Asp His Ala Leu Met Thr Pro Ser Thr
 245 250 255

Pro Ser Leu Thr Gln Glu Ser Asn Leu Pro Ser Pro Gln Pro Thr Ile
 260 265 270

Pro Leu Ala Ser Ser Pro Ala Thr Asp Leu Pro Val Gln Ser Val Val
 275 280 285

Val Ser Ser Leu Pro Gln Thr Asp Leu Ser His Thr Leu Ser Pro Val
 290 295 300

Gln Ser Ser Ile Pro Ser Pro Thr Thr Pro Ala Pro Ser Val Pro Thr
 305 310 315 320

Glu Leu Val Thr Ile Ser Thr Pro Pro Gly Glu Thr Val Val Asn Thr
 325 330 335

Ser Thr Val Ser Asp Leu Glu Ala Gln Val Ser Gln Met Glu Lys Ala

340 345 350
 Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu Met Val Asn
 355 360 365
 Arg Val Ser Lys Leu Leu His Ser Pro Pro Ala Leu Leu Ala Pro Leu
 370 375 380
 Ala Gln Arg Leu Leu Lys Val Val Asp Ala Ile Gly Leu Gln Leu Asn
 385 390 395 400
 Phe Ser Ser Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala
 405 410 415
 Val Ile Arg Val Asn Ala Ser Asn Phe Asn Thr Thr Thr Phe Ala Ala
 420 425 430
 Gln Asp Pro Thr Asn Leu Gln Val Ser Leu Glu Thr Pro Pro Pro Glu
 435 440 445
 Asn Ser Ile Gly Ala Ile Thr Leu Pro Ser Ser Leu Met Asn Asn Leu
 450 455 460
 Pro Ala Asn Asp Val Glu Leu Ala Ser Arg Ile Gln Phe Asn Phe Phe
 465 470 475 480
 Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu Thr Leu
 485 490 495
 Ile Ser Tyr Val Ile Ser Ser Ser Val Thr Asn Met Thr Ile Lys Asn
 500 505 510
 Leu Thr Arg Asn Val Thr Val Ala Leu Lys His Ile Asn Pro Ser Pro
 515 520 525
 Asp Asp Leu Thr Val Lys Cys Val Phe Trp Asp Leu Gly Arg Asn Gly
 530 535 540
 Gly Lys Gly Gly Trp Ser Ser Asp Gly Cys Ser Val Lys Asp Lys Arg
 545 550 555 560
 Met Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe Gly Ile
 565 570 575

Leu Leu Asp Leu Ser Arg Thr Ser Leu Pro Pro Ser Gln Met Met Ala
 580 585 590

Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu
 595 600 605

Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp
 610 615 620

Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu
 625 630 635 640

Asn Leu Ile Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Asn Thr Arg
 645 650 655

Gly Phe Cys Ile Ala Val Ala Val Phe Leu His Tyr Phe Leu Leu Val
 660 665 670

Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu
 675 680 685

Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys
 690 695 700

Ile Val Gly Trp Gly Ile Pro Ala Val Val Val Ser Ile Val Leu Thr
 705 710 715 720

Ile Ser Pro Asp Asn Tyr Gly Ile Gly Ser Tyr Gly Lys Phe Pro Asn
 725 730 735

Gly Thr Pro Asp Asp Phe Cys Trp Ile Asn Ser Asn Val Val Phe Tyr
 740 745 750

Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn Val Ser
 755 760 765

Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys Lys Lys
 770 775 780

Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser Ile
 785 790 795 800

Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe Phe
805 810 815

Ala Trp Gly Pro Val Asn Val Thr Phe Met Tyr Leu Phe Ala Ile Phe
820 825 830

Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Ala Ala Lys
835 840 845

Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys Leu
850 855 860

Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn Gly Leu
865 870 875 880

Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn Ser Leu
885 890 895

Gln Ser Ser Cys Asn Ser Thr Asn Ser Thr Thr Leu Leu Val Asn Ser
900 905 910

Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu Arg
915 920 925

Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu His Asp
930 935 940

Leu Thr Gly Lys Gln His Met Phe Ser Asp Lys Glu Asp Ser Cys Asn
945 950 955 960

Gly Lys Ser Arg Ile Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu
965 970 975

His Phe Ile Glu Gln Met
980

<210> 56
<211> 1032
<212> PRT
<213> Homo sapiens

<400> 56

Arg Thr Cys Arg Cys Ala Gln Ser Leu Leu Pro Leu Phe Ser Glu Leu

1	5	10	15														
Pro	Val	Arg	Met	Leu	Phe	Ser	Gly	Gly	Gln	Tyr	Ser	Pro	Val	Gly	Arg		
			20					25					30				
Pro	Glu	Glu	Val	Leu	Leu	Ile	Tyr	Lys	Ile	Phe	Leu	Val	Ile	Ile	Cys		
		35					40					45					
Phe	His	Ala	Ile	Leu	Val	Thr	Ser	Leu	Lys	Glu	Asn	Ala	Gly	Asn	Ser		
	50					55					60						
Ser	Leu	Leu	Ser	Pro	Ser	Ala	Glu	Ser	Ser	Leu	Val	Ser	Leu	Val	Pro		
65					70					75					80		
Tyr	Ser	Asn	Gly	Thr	Pro	Asp	Ala	Ala	Ser	Glu	Val	Leu	Ser	Thr	Leu		
				85					90					95			
Asn	Arg	Thr	Glu	Lys	Ser	Lys	Ile	Thr	Ile	Leu	Lys	Thr	Phe	Asn	Ala		
			100					105					110				
Ser	Gly	Val	Lys	Ser	Gln	Arg	Asn	Ile	Cys	Asn	Leu	Ser	Ser	Ile	Cys		
		115					120				125						
Ser	Asp	Ser	Val	Phe	Phe	Arg	Gly	Glu	Ile	Val	Phe	Gln	His	Asp	Asp		
	130					135					140						
His	Tyr	Asn	Val	Thr	Gln	Asn	Gln	Asp	Ile	Val	Asn	Ser	Thr	Phe	Ala		
145					150					155					160		
Gly	Val	Leu	Ser	Leu	Ser	Glu	Leu	Lys	Arg	Thr	Glu	Leu	Asn	Lys	Thr		
				165					170					175			
Leu	Gln	Thr	Leu	Ser	Glu	Thr	Tyr	Phe	Ile	Val	Cys	Ala	Thr	Ala	Glu		
			180					185					190				
Ala	Gln	Asn	Thr	Leu	Asn	Cys	Thr	Phe	Thr	Val	Lys	Leu	Asn	Glu	Thr		
		195					200					205					
Met	Asn	Val	Cys	Ala	Met	Met	Val	Thr	Phe	Lys	Ser	Val	Gln	Ile	Arg		
	210					215					220						
Pro	Met	Glu	Gln	Cys	Cys	Cys	Ser	Pro	Arg	Thr	Pro	Cys	Pro	Ser	Ser		
225					230					235					240		

Pro Glu Glu Leu Glu Lys Leu Gln Cys Asp Leu Gln Asp Pro Ile Val
 245 250 255

Cys Leu Ala Asp Gln Pro His Gly Pro Pro Val Ser Ser Ser Ser Lys
 260 265 270

Pro Val Pro Val Val Pro Gln Ala Thr Ile Phe Ser His Val Ala Ser
 275 280 285

Asp Phe Ser Leu Ala Glu Pro Leu Asp His Ala Leu Met Thr Ser Ser
 290 295 300

Thr Pro Ser Leu Ala Gln Glu Thr Arg Leu Pro Ser Pro Gln Pro Thr
 305 310 315 320

Ile Ser Leu Thr Ser Ser Pro Ala Ile Asp Leu Pro Val Gln His Val
 325 330 335

Val Ala Ser Ser Ser Leu Pro Gln Thr Asp Leu Ser His Thr Leu Ser
 340 345 350

Pro Val Gln Ser Ser Ile Pro Ser Pro Thr Thr Ala Ala Pro Ser Val
 355 360 365

Pro Glu Lys Val Val Ala Ile Ser Thr Pro Pro Gly Glu Thr Val Val
 370 375 380

Asn Thr Ser Ser Val Pro Asp Leu Glu Ala Gln Val Ser Gln Met Glu
 385 390 395 400

Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu Met
 405 410 415

Val Asn Arg Val Ser Lys Leu Leu His Ser Pro Leu Ala Leu Leu Ala
 420 425 430

Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Ala Ile Gly Leu Gln
 435 440 445

Leu Asn Phe Ser Ser Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala
 450 455 460

Leu Ala Val Ile Arg Val Asn Ala Ser Asn Phe Asn Thr Thr Thr Phe
 465 470 475 480

Ala Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu Glu Ala Gln Ala
 485 490 495

Pro Lys Asn Ser Ile Gly Ala Ile Thr Leu Pro Ser Ser Leu Met Ser
 500 505 510

Asn Leu Pro Ala Ser Glu Val Glu Leu Ala Ser Arg Val Gln Phe Asn
 515 520 525

Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu
 530 535 540

Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Thr Asn Met Thr Ile
 545 550 555 560

Lys Asn Leu Thr Arg Asn Val Thr Val Ala Leu Lys His Ile Asn Pro
 565 570 575

Ser Gln Asp Asp Leu Thr Val Lys Cys Val Phe Trp Asp Leu Asn Arg
 580 585 590

Asn Gly Gly Arg Gly Gly Trp Ser Ser Asp Gly Cys Ser Val Lys Glu
 595 600 605

Lys Arg Met Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe
 610 615 620

Gly Ile Leu Leu Asp Leu Ser Arg Thr Ser Leu Pro Pro Ser Gln Met
 625 630 635 640

Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile
 645 650 655

Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg
 660 665 670

Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu
 675 680 685

Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Asn
690 695 700

Ala Arg Gly Phe Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe Leu
705 710 715 720

Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu
725 730 735

Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys
740 745 750

Phe Cys Ile Val Gly Trp Gly Ile Pro Ala Val Val Val Ser Ile Val
755 760 765

Leu Thr Ile Ser Pro Asp Asn Tyr Gly Ile Gly Ser Tyr Gly Lys Phe
770 775 780

Pro Asn Gly Thr Pro Asp Asp Phe Cys Trp Ile Asn Ser Ser Val Val
785 790 795 800

Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn
805 810 815

Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys
820 825 830

Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg
835 840 845

Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala
850 855 860

Phe Phe Ala Trp Gly Pro Val Asn Leu Thr Phe Met Tyr Leu Phe Ala
865 870 875 880

Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Ala
885 890 895

Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly
900 905 910

Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn

915 920 925
 Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn
 930 935 940
 Ser Leu Gln Ser Ser Cys Asn Ser Thr Asn Ser Thr Thr Leu Leu Val
 945 950 955 960
 Asn Ser Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr
 965 970 975
 Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu
 980 985 990
 His Asp Leu Thr Gly Lys Gln His Met Phe Ser Asp Lys Glu Asp Ser
 995 1000 1005
 Cys Asn Gly Lys Ser Arg Met Ala Leu Arg Arg Thr Ser Lys Arg
 1010 1015 1020
 Gly Ser Leu His Phe Ile Glu Gln Met
 1025 1030

 <210> 57
 <211> 1016
 <212> PRT
 <213> Homo sapiens

 <400> 57
 Arg Thr Cys Arg Cys Ala Gln Ser Leu Leu Pro Leu Phe Ser Glu Leu
 1 5 10 15
 Pro Val Arg Met Leu Phe Ser Gly Gly Gln Tyr Ser Pro Val Gly Arg
 20 25 30
 Pro Glu Glu Val Leu Leu Ile Tyr Lys Ile Phe Leu Val Ile Ile Cys
 35 40 45
 Phe His Ala Ile Leu Val Thr Ser Leu Lys Glu Asn Ala Gly Asn Ser
 50 55 60
 Ser Leu Leu Ser Pro Ser Asp Ala Ala Ser Glu Val Leu Ser Thr Leu
 65 70 75 80

Asn Arg Thr Glu Lys Ser Lys Ile Thr Ile Leu Lys Thr Phe Asn Ala
 85 90 95

Ser Gly Val Lys Ser Gln Arg Asn Ile Cys Asn Leu Ser Ser Ile Cys
 100 105 110

Ser Asp Ser Val Phe Phe Arg Gly Glu Ile Val Phe Gln His Asp Asp
 115 120 125

His Tyr Asn Val Thr Gln Asn Gln Asp Ile Val Asn Ser Thr Phe Ala
 130 135 140

Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Thr Glu Leu Asn Lys Thr
 145 150 155 160

Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Val Cys Ala Thr Ala Glu
 165 170 175

Ala Gln Asn Thr Leu Asn Cys Thr Phe Thr Val Lys Leu Asn Glu Thr
 180 185 190

Met Asn Val Cys Ala Met Met Val Thr Phe Lys Ser Val Gln Ile Arg
 195 200 205

Pro Met Glu Gln Cys Cys Cys Ser Pro Arg Thr Pro Cys Pro Ser Ser
 210 215 220

Pro Glu Glu Leu Glu Lys Leu Gln Cys Asp Leu Gln Asp Pro Ile Val
 225 230 235 240

Cys Leu Ala Asp Gln Pro His Gly Pro Pro Val Ser Ser Ser Ser Lys
 245 250 255

Pro Val Pro Val Val Pro Gln Ala Thr Ile Phe Ser His Val Ala Ser
 260 265 270

Asp Phe Ser Leu Ala Glu Pro Leu Asp His Ala Leu Met Thr Ser Ser
 275 280 285

Thr Pro Ser Leu Ala Gln Glu Thr Arg Leu Pro Ser Pro Gln Pro Thr
 290 295 300

Ile Ser Leu Thr Ser Ser Pro Ala Ile Asp Leu Pro Val Gln His Val
 305 310 315 320

Val Ala Ser Ser Ser Leu Pro Gln Thr Asp Leu Ser His Thr Leu Ser
 325 330 335

Pro Val Gln Ser Ser Ile Pro Ser Pro Thr Thr Ala Ala Pro Ser Val
 340 345 350

Pro Glu Lys Val Val Ala Ile Ser Thr Pro Pro Gly Glu Thr Val Val
 355 360 365

Asn Thr Ser Ser Val Pro Asp Leu Glu Ala Gln Val Ser Gln Met Glu
 370 375 380

Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu Met
 385 390 395 400

Val Asn Arg Val Ser Lys Leu Leu His Ser Pro Leu Ala Leu Leu Ala
 405 410 415

Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Ala Ile Gly Leu Gln
 420 425 430

Leu Asn Phe Ser Ser Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala
 435 440 445

Leu Ala Val Ile Arg Val Asn Ala Ser Asn Phe Asn Thr Thr Thr Phe
 450 455 460

Ala Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu Glu Ala Gln Ala
 465 470 475 480

Pro Lys Asn Ser Ile Gly Ala Ile Thr Leu Pro Ser Ser Leu Met Ser
 485 490 495

Asn Leu Pro Ala Ser Glu Val Glu Leu Ala Ser Arg Val Gln Phe Asn
 500 505 510

Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu
 515 520 525

Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Thr Asn Met Thr Ile

530		535		540
Lys Asn Leu Thr Arg Asn Val Thr Val Ala Leu Lys His Ile Asn Pro				
545		550		555
Ser Gln Asp Asp Leu Thr Val Lys Cys Val Phe Trp Asp Leu Asn Arg				
		565		570
Asn Gly Gly Arg Gly Gly Trp Ser Ser Asp Gly Cys Ser Val Lys Glu				
		580		585
Lys Arg Met Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe				
		595		600
Gly Ile Leu Leu Asp Leu Ser Arg Thr Ser Leu Pro Pro Ser Gln Met				
		610		620
Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile				
		625		630
Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg				
		645		650
Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu				
		660		665
Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Asn				
		675		680
Ala Arg Gly Phe Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe Leu				
		690		695
Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu				
		705		710
Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys				
		725		730
Phe Cys Ile Val Gly Trp Gly Ile Pro Ala Val Val Val Ser Ile Val				
		740		745
Leu Thr Ile Ser Pro Asp Asn Tyr Gly Ile Gly Ser Tyr Gly Lys Phe				
		755		760
				765

Pro Asn Gly Thr Pro Asp Asp Phe Cys Trp Ile Asn Ser Ser Val Val
 770 775 780

Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn
 785 790 795 800

Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys
 805 810 815

Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg
 820 825 830

Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala
 835 840 845

Phe Phe Ala Trp Gly Pro Val Asn Leu Thr Phe Met Tyr Leu Phe Ala
 850 855 860

Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Ala
 865 870 875 880

Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly
 885 890 895

Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn
 900 905 910

Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn
 915 920 925

Ser Leu Gln Ser Ser Cys Asn Ser Thr Asn Ser Thr Thr Leu Leu Val
 930 935 940

Asn Ser Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr
 945 950 955 960

Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu
 965 970 975

His Asp Leu Thr Gly Lys Gln His Met Phe Ser Asp Lys Glu Asp Ser
 980 985 990

Cys Asn Gly Lys Ser Arg Met Ala Leu Arg Arg Thr Ser Lys Arg Gly
 995 1000 1005

Ser Leu His Phe Ile Glu Gln Met
 1010 1015

<210> 58
 <211> 997
 <212> PRT
 <213> Homo sapiens

<400> 58

Met Leu Phe Ser Gly Gly Gln Tyr Ser Pro Val Gly Arg Pro Glu Glu
 1 5 10 15

Val Leu Leu Ile Tyr Lys Ile Phe Leu Val Ile Ile Cys Phe His Ala
 20 25 30

Ile Leu Val Thr Ser Leu Lys Glu Asn Ala Gly Asn Ser Ser Leu Leu
 35 40 45

Ser Pro Ser Asp Ala Ala Ser Glu Val Leu Ser Thr Leu Asn Arg Thr
 50 55 60

Glu Lys Ser Lys Ile Thr Ile Leu Lys Thr Phe Asn Ala Ser Gly Val
 65 70 75 80

Lys Ser Gln Arg Asn Ile Cys Asn Leu Ser Ser Ile Cys Ser Asp Ser
 85 90 95

Val Phe Phe Arg Gly Glu Ile Val Phe Gln His Asp Asp His Tyr Asn
 100 105 110

Val Thr Gln Asn Gln Asp Ile Val Asn Ser Thr Phe Ala Gly Val Leu
 115 120 125

Ser Leu Ser Glu Leu Lys Arg Thr Glu Leu Asn Lys Thr Leu Gln Thr
 130 135 140

Leu Ser Glu Thr Tyr Phe Ile Val Cys Ala Thr Ala Glu Ala Gln Asn
 145 150 155 160

Thr Leu Asn Cys Thr Phe Thr Val Lys Leu Asn Glu Thr Met Asn Val

				165						170						175
Cys	Ala	Met	Met	Val	Thr	Phe	Lys	Ser	Val	Gln	Ile	Arg	Pro	Met	Glu	
			180					185					190			
Gln	Cys	Cys	Cys	Ser	Pro	Arg	Thr	Pro	Cys	Pro	Ser	Ser	Pro	Glu	Glu	
		195					200					205				
Leu	Glu	Lys	Leu	Gln	Cys	Asp	Leu	Gln	Asp	Pro	Ile	Val	Cys	Leu	Ala	
	210					215					220					
Asp	Gln	Pro	His	Gly	Pro	Pro	Val	Ser	Ser	Ser	Ser	Lys	Pro	Val	Pro	
225					230					235					240	
Val	Val	Pro	Gln	Ala	Thr	Ile	Phe	Ser	His	Val	Ala	Ser	Asp	Phe	Ser	
				245					250					255		
Leu	Ala	Glu	Pro	Leu	Asp	His	Ala	Leu	Met	Thr	Ser	Ser	Thr	Pro	Ser	
			260					265					270			
Leu	Ala	Gln	Glu	Thr	Arg	Leu	Pro	Ser	Pro	Gln	Pro	Thr	Ile	Ser	Leu	
		275					280					285				
Thr	Ser	Ser	Pro	Ala	Ile	Asp	Leu	Pro	Val	Gln	His	Val	Val	Ala	Ser	
	290					295					300					
Ser	Ser	Leu	Pro	Gln	Thr	Asp	Leu	Ser	His	Thr	Leu	Ser	Pro	Val	Gln	
305					310					315					320	
Ser	Ser	Ile	Pro	Ser	Pro	Thr	Thr	Ala	Ala	Pro	Ser	Val	Pro	Glu	Lys	
				325					330					335		
Val	Val	Ala	Ile	Ser	Thr	Pro	Pro	Gly	Glu	Thr	Val	Val	Asn	Thr	Ser	
			340					345					350			
Ser	Val	Pro	Asp	Leu	Glu	Ala	Gln	Val	Ser	Gln	Met	Glu	Lys	Ala	Leu	
		355					360					365				
Ser	Leu	Gly	Ser	Leu	Glu	Pro	Asn	Leu	Ala	Gly	Glu	Met	Val	Asn	Arg	
	370					375					380					
Val	Ser	Lys	Leu	Leu	His	Ser	Pro	Leu	Ala	Leu	Leu	Ala	Pro	Leu	Ala	
385					390					395					400	

Gln Arg Leu Leu Lys Val Val Asp Ala Ile Gly Leu Gln Leu Asn Phe
 405 410 415

Ser Ser Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu Ala Leu Ala Val
 420 425 430

Ile Arg Val Asn Ala Ser Asn Phe Asn Thr Thr Thr Phe Ala Ala Gln
 435 440 445

Asp Pro Ala Asn Leu Gln Val Ser Leu Glu Ala Gln Ala Pro Lys Asn
 450 455 460

Ser Ile Gly Ala Ile Thr Leu Pro Ser Ser Leu Met Ser Asn Leu Pro
 465 470 475 480

Ala Ser Glu Val Glu Leu Ala Ser Arg Val Gln Phe Asn Phe Phe Glu
 485 490 495

Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn Leu Ser Leu Ile
 500 505 510

Ser Tyr Val Ile Ser Ser Ser Val Thr Asn Met Thr Ile Lys Asn Leu
 515 520 525

Thr Arg Asn Val Thr Val Ala Leu Lys His Ile Asn Pro Ser Gln Asp
 530 535 540

Asp Leu Thr Val Lys Cys Val Phe Trp Asp Leu Asn Arg Asn Gly Gly
 545 550 555 560

Arg Gly Gly Trp Ser Ser Asp Gly Cys Ser Val Lys Glu Lys Arg Met
 565 570 575

Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser Phe Gly Ile Leu
 580 585 590

Leu Asp Leu Ser Arg Thr Ser Leu Pro Pro Ser Gln Met Met Ala Leu
 595 600 605

Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser Ile Phe Leu Ser
 610 615 620

Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile Arg Arg Asp Tyr
 625 630 635 640

Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu Leu Leu Leu Asn
 645 650 655

Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr Asn Ala Arg Gly
 660 665 670

Phe Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe Leu Leu Val Ser
 675 680 685

Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr Leu Ala Leu Val
 690 695 700

Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu Lys Phe Cys Ile
 705 710 715 720

Val Gly Trp Gly Ile Pro Ala Val Val Val Ser Ile Val Leu Thr Ile
 725 730 735

Ser Pro Asp Asn Tyr Gly Ile Gly Ser Tyr Gly Lys Phe Pro Asn Gly
 740 745 750

Thr Pro Asp Asp Phe Cys Trp Ile Asn Ser Ser Val Val Phe Tyr Ile
 755 760 765

Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu Asn Val Ser Met
 770 775 780

Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys Lys Lys Lys Gln
 785 790 795 800

Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu Arg Ser Ile Ala
 805 810 815

Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe Ala Phe Phe Ala
 820 825 830

Trp Gly Pro Val Asn Leu Thr Phe Met Tyr Leu Phe Ala Ile Phe Asn
 835 840 845

Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys Ala Ala Lys Glu
850 855 860

Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys Gly Lys Leu Arg
865 870 875 880

Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr Asn Gly Leu Lys
885 890 895

Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser Asn Ser Leu Gln
900 905 910

Ser Ser Cys Asn Ser Thr Asn Ser Thr Thr Leu Leu Val Asn Ser Asp
915 920 925

Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser Thr Glu Arg Asn
930 935 940

Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys Leu His Asp Leu
945 950 955 960

Thr Gly Lys Gln His Met Phe Ser Asp Lys Glu Asp Ser Cys Asn Gly
965 970 975

Lys Ser Arg Met Ala Leu Arg Arg Thr Ser Lys Arg Gly Ser Leu His
980 985 990

Phe Ile Glu Gln Met
995

<210> 59
<211> 1004
<212> PRT
<213> Homo sapiens

<400> 59

Arg Thr Cys Arg Cys Ala Gln Ser Leu Leu Pro Leu Phe Ser Glu Leu
1 5 10 15

Pro Val Arg Met Leu Phe Ser Gly Gly Gln Tyr Ser Pro Val Gly Arg
20 25 30

Pro Glu Glu Val Leu Leu Ile Tyr Lys Ile Phe Leu Val Ile Ile Cys
35 40 45

Phe His Ala Ile Leu Val Thr Ser Leu Lys Asp Ala Ala Ser Glu Val
50 55 60

Leu Ser Thr Leu Asn Arg Thr Glu Lys Ser Lys Ile Thr Ile Leu Lys
65 70 75 80

Thr Phe Asn Ala Ser Gly Val Lys Ser Gln Arg Asn Ile Cys Asn Leu
85 90 95

Ser Ser Ile Cys Ser Asp Ser Val Phe Phe Arg Gly Glu Ile Val Phe
100 105 110

Gln His Asp Asp His Tyr Asn Val Thr Gln Asn Gln Asp Ile Val Asn
115 120 125

Ser Thr Phe Ala Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Thr Glu
130 135 140

Leu Asn Lys Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Val Cys
145 150 155 160

Ala Thr Ala Glu Ala Gln Asn Thr Leu Asn Cys Thr Phe Thr Val Lys
165 170 175

Leu Asn Glu Thr Met Asn Val Cys Ala Met Met Val Thr Phe Lys Ser
180 185 190

Val Gln Ile Arg Pro Met Glu Gln Cys Cys Cys Ser Pro Arg Thr Pro
195 200 205

Cys Pro Ser Ser Pro Glu Glu Leu Glu Lys Leu Gln Cys Asp Leu Gln
210 215 220

Asp Pro Ile Val Cys Leu Ala Asp Gln Pro His Gly Pro Pro Val Ser
225 230 235 240

Ser Ser Ser Lys Pro Val Pro Val Val Pro Gln Ala Thr Ile Phe Ser
245 250 255

His Val Ala Ser Asp Phe Ser Leu Ala Glu Pro Leu Asp His Ala Leu
260 265 270

Met Thr Ser Ser Thr Pro Ser Leu Ala Gln Glu Thr Arg Leu Pro Ser
 275 280 285

Pro Gln Pro Thr Ile Ser Leu Thr Ser Ser Pro Ala Ile Asp Leu Pro
 290 295 300

Val Gln His Val Val Ala Ser Ser Ser Leu Pro Gln Thr Asp Leu Ser
 305 310 315 320

His Thr Leu Ser Pro Val Gln Ser Ser Ile Pro Ser Pro Thr Thr Ala
 325 330 335

Ala Pro Ser Val Pro Glu Lys Val Val Ala Ile Ser Thr Pro Pro Gly
 340 345 350

Glu Thr Val Val Asn Thr Ser Ser Val Pro Asp Leu Glu Ala Gln Val
 355 360 365

Ser Gln Met Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu
 370 375 380

Ala Gly Glu Met Val Asn Arg Val Ser Lys Leu Leu His Ser Pro Leu
 385 390 395 400

Ala Leu Leu Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Ala
 405 410 415

Ile Gly Leu Gln Leu Asn Phe Ser Ser Thr Thr Ile Ser Leu Thr Ser
 420 425 430

Pro Ser Leu Ala Leu Ala Val Ile Arg Val Asn Ala Ser Asn Phe Asn
 435 440 445

Thr Thr Thr Phe Ala Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu
 450 455 460

Glu Ala Gln Ala Pro Lys Asn Ser Ile Gly Ala Ile Thr Leu Pro Ser
 465 470 475 480

Ser Leu Met Ser Asn Leu Pro Ala Ser Glu Val Glu Leu Ala Ser Arg
 485 490 495

Val Gln Phe Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser
500 505 510

Leu Glu Asn Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Thr
515 520 525

Asn Met Thr Ile Lys Asn Leu Thr Arg Asn Val Thr Val Ala Leu Lys
530 535 540

His Ile Asn Pro Ser Gln Asp Asp Leu Thr Val Lys Cys Val Phe Trp
545 550 555 560

Asp Leu Asn Arg Asn Gly Gly Arg Gly Gly Trp Ser Ser Asp Gly Cys
565 570 575

Ser Val Lys Glu Lys Arg Met Asn Glu Thr Ile Cys Thr Cys Ser His
580 585 590

Leu Thr Ser Phe Gly Ile Leu Leu Asp Leu Ser Arg Thr Ser Leu Pro
595 600 605

Pro Ser Gln Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly
610 615 620

Leu Ser Ser Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe
625 630 635 640

Glu Lys Ile Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys
645 650 655

Ala Ala Leu Leu Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile
660 665 670

Ala Leu Tyr Asn Ala Arg Gly Phe Cys Ile Ser Val Ala Val Phe Leu
675 680 685

His Tyr Phe Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe
690 695 700

His Met Tyr Leu Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys
705 710 715 720

Tyr Ile Leu Lys Phe Cys Ile Val Gly Trp Gly Ile Pro Ala Val Val

725

730

735

Val Ser Ile Val Leu Thr Ile Ser Pro Asp Asn Tyr Gly Ile Gly Ser
740 745 750

Tyr Gly Lys Phe Pro Asn Gly Thr Pro Asp Asp Phe Cys Trp Ile Asn
755 760 765

Ser Ser Val Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile
770 775 780

Phe Leu Leu Asn Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys
785 790 795 800

Arg Ile Lys Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile
805 810 815

Gln Asp Leu Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr
820 825 830

Trp Gly Phe Ala Phe Phe Ala Trp Gly Pro Val Asn Leu Thr Phe Met
835 840 845

Tyr Leu Phe Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile
850 855 860

Phe Tyr Cys Ala Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr
865 870 875 880

Leu Cys Cys Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys
885 890 895

Thr Ala Thr Asn Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser
900 905 910

Ser Ser Ser Asn Ser Leu Gln Ser Ser Cys Asn Ser Thr Asn Ser Thr
915 920 925

Thr Leu Leu Val Asn Ser Asp Cys Ser Val His Ala Ser Gly Asn Gly
930 935 940

Asn Ala Ser Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly
945 950 955 960

Asp Val Cys Leu His Asp Leu Thr Gly Lys Gln His Met Phe Ser Asp
965 970 975

Lys Glu Asp Ser Cys Asn Gly Lys Ser Arg Met Ala Leu Arg Arg Thr
980 985 990

Ser Lys Arg Gly Ser Leu His Phe Ile Glu Gln Met
995 1000

<210> 60
<211> 985
<212> PRT
<213> Homo sapiens

<400> 60

Met Leu Phe Ser Gly Gly Gln Tyr Ser Pro Val Gly Arg Pro Glu Glu
1 5 10 15

Val Leu Leu Ile Tyr Lys Ile Phe Leu Val Ile Ile Cys Phe His Ala
20 25 30

Ile Leu Val Thr Ser Leu Lys Asp Ala Ala Ser Glu Val Leu Ser Thr
35 40 45

Leu Asn Arg Thr Glu Lys Ser Lys Ile Thr Ile Leu Lys Thr Phe Asn
50 55 60

Ala Ser Gly Val Lys Ser Gln Arg Asn Ile Cys Asn Leu Ser Ser Ile
65 70 75 80

Cys Ser Asp Ser Val Phe Phe Arg Gly Glu Ile Val Phe Gln His Asp
85 90 95

Asp His Tyr Asn Val Thr Gln Asn Gln Asp Ile Val Asn Ser Thr Phe
100 105 110

Ala Gly Val Leu Ser Leu Ser Glu Leu Lys Arg Thr Glu Leu Asn Lys
115 120 125

Thr Leu Gln Thr Leu Ser Glu Thr Tyr Phe Ile Val Cys Ala Thr Ala
130 135 140

Glu Ala Gln Asn Thr Leu Asn Cys Thr Phe Thr Val Lys Leu Asn Glu
 145 150 155 160

Thr Met Asn Val Cys Ala Met Met Val Thr Phe Lys Ser Val Gln Ile
 165 170 175

Arg Pro Met Glu Gln Cys Cys Cys Ser Pro Arg Thr Pro Cys Pro Ser
 180 185 190

Ser Pro Glu Glu Leu Glu Lys Leu Gln Cys Asp Leu Gln Asp Pro Ile
 195 200 205

Val Cys Leu Ala Asp Gln Pro His Gly Pro Pro Val Ser Ser Ser Ser
 210 215 220

Lys Pro Val Pro Val Val Pro Gln Ala Thr Ile Phe Ser His Val Ala
 225 230 235 240

Ser Asp Phe Ser Leu Ala Glu Pro Leu Asp His Ala Leu Met Thr Ser
 245 250 255

Ser Thr Pro Ser Leu Ala Gln Glu Thr Arg Leu Pro Ser Pro Gln Pro
 260 265 270

Thr Ile Ser Leu Thr Ser Ser Pro Ala Ile Asp Leu Pro Val Gln His
 275 280 285

Val Val Ala Ser Ser Ser Leu Pro Gln Thr Asp Leu Ser His Thr Leu
 290 295 300

Ser Pro Val Gln Ser Ser Ile Pro Ser Pro Thr Thr Ala Ala Pro Ser
 305 310 315 320

Val Pro Glu Lys Val Val Ala Ile Ser Thr Pro Pro Gly Glu Thr Val
 325 330 335

Val Asn Thr Ser Ser Val Pro Asp Leu Glu Ala Gln Val Ser Gln Met
 340 345 350

Glu Lys Ala Leu Ser Leu Gly Ser Leu Glu Pro Asn Leu Ala Gly Glu
 355 360 365

Met Val Asn Arg Val Ser Lys Leu Leu His Ser Pro Leu Ala Leu Leu

370 375 380
 Ala Pro Leu Ala Gln Arg Leu Leu Lys Val Val Asp Ala Ile Gly Leu
 385 390 395 400
 Gln Leu Asn Phe Ser Ser Thr Thr Ile Ser Leu Thr Ser Pro Ser Leu
 405 410 415
 Ala Leu Ala Val Ile Arg Val Asn Ala Ser Asn Phe Asn Thr Thr Thr
 420 425 430
 Phe Ala Ala Gln Asp Pro Ala Asn Leu Gln Val Ser Leu Glu Ala Gln
 435 440 445
 Ala Pro Lys Asn Ser Ile Gly Ala Ile Thr Leu Pro Ser Ser Leu Met
 450 455 460
 Ser Asn Leu Pro Ala Ser Glu Val Glu Leu Ala Ser Arg Val Gln Phe
 465 470 475 480
 Asn Phe Phe Glu Thr Pro Ala Leu Phe Gln Asp Pro Ser Leu Glu Asn
 485 490 495
 Leu Ser Leu Ile Ser Tyr Val Ile Ser Ser Ser Val Thr Asn Met Thr
 500 505 510
 Ile Lys Asn Leu Thr Arg Asn Val Thr Val Ala Leu Lys His Ile Asn
 515 520 525
 Pro Ser Gln Asp Asp Leu Thr Val Lys Cys Val Phe Trp Asp Leu Asn
 530 535 540
 Arg Asn Gly Gly Arg Gly Gly Trp Ser Ser Asp Gly Cys Ser Val Lys
 545 550 555 560
 Glu Lys Arg Met Asn Glu Thr Ile Cys Thr Cys Ser His Leu Thr Ser
 565 570 575
 Phe Gly Ile Leu Leu Asp Leu Ser Arg Thr Ser Leu Pro Pro Ser Gln
 580 585 590
 Met Met Ala Leu Thr Phe Ile Thr Tyr Ile Gly Cys Gly Leu Ser Ser
 595 600 605

Ile Phe Leu Ser Val Thr Leu Val Thr Tyr Ile Ala Phe Glu Lys Ile
 610 615 620

Arg Arg Asp Tyr Pro Ser Lys Ile Leu Ile Gln Leu Cys Ala Ala Leu
 625 630 635 640

Leu Leu Leu Asn Leu Val Phe Leu Leu Asp Ser Trp Ile Ala Leu Tyr
 645 650 655

Asn Ala Arg Gly Phe Cys Ile Ser Val Ala Val Phe Leu His Tyr Phe
 660 665 670

Leu Leu Val Ser Phe Thr Trp Met Gly Leu Glu Ala Phe His Met Tyr
 675 680 685

Leu Ala Leu Val Lys Val Phe Asn Thr Tyr Ile Arg Lys Tyr Ile Leu
 690 695 700

Lys Phe Cys Ile Val Gly Trp Gly Ile Pro Ala Val Val Val Ser Ile
 705 710 715 720

Val Leu Thr Ile Ser Pro Asp Asn Tyr Gly Ile Gly Ser Tyr Gly Lys
 725 730 735

Phe Pro Asn Gly Thr Pro Asp Asp Phe Cys Trp Ile Asn Ser Ser Val
 740 745 750

Val Phe Tyr Ile Thr Val Val Gly Tyr Phe Cys Val Ile Phe Leu Leu
 755 760 765

Asn Val Ser Met Phe Ile Val Val Leu Val Gln Leu Cys Arg Ile Lys
 770 775 780

Lys Lys Lys Gln Leu Gly Ala Gln Arg Lys Thr Ser Ile Gln Asp Leu
 785 790 795 800

Arg Ser Ile Ala Gly Leu Thr Phe Leu Leu Gly Ile Thr Trp Gly Phe
 805 810 815

Ala Phe Phe Ala Trp Gly Pro Val Asn Leu Thr Phe Met Tyr Leu Phe
 820 825 830



Ala Ile Phe Asn Thr Leu Gln Gly Phe Phe Ile Phe Ile Phe Tyr Cys
835 840 845

Ala Ala Lys Glu Asn Val Arg Lys Gln Trp Arg Arg Tyr Leu Cys Cys
850 855 860

Gly Lys Leu Arg Leu Ala Glu Asn Ser Asp Trp Ser Lys Thr Ala Thr
865 870 875 880

Asn Gly Leu Lys Lys Gln Thr Val Asn Gln Gly Val Ser Ser Ser Ser
885 890 895

Asn Ser Leu Gln Ser Ser Cys Asn Ser Thr Asn Ser Thr Thr Leu Leu
900 905 910

Val Asn Ser Asp Cys Ser Val His Ala Ser Gly Asn Gly Asn Ala Ser
915 920 925

Thr Glu Arg Asn Gly Val Ser Phe Ser Val Gln Asn Gly Asp Val Cys
930 935 940

Leu His Asp Leu Thr Gly Lys Gln His Met Phe Ser Asp Lys Glu Asp
945 950 955 960

Ser Cys Asn Gly Lys Ser Arg Met Ala Leu Arg Arg Thr Ser Lys Arg
965 970 975

Gly Ser Leu His Phe Ile Glu Gln Met
980 985